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The
(Botanic Garden.)

Consisting of

Highly finished Representations

OF HARDY

ORNAMENTAL FLOWERING

(PLANTS.)

CULTIVATED IN GREAT BRITAIN,

WITH

Their Classification History, Culture,

(AND)

OTHER INTERESTING INFORMATION.

BY

B. MAUND, F.L.S.

Vol.



LONDON

SIMPKIN AND MARSHALL, STATIONERS HALL COURT,
AND
SHERWOOD AND CO. PATERNOSTER ROW.



THE
BOTANIC GARDEN;

CONSISTING OF

HIGHLY FINISHED REPRESENTATIONS

OF HARDY

ORNAMENTAL FLOWERING PLANTS,

CULTIVATED

IN GREAT BRITAIN;

WITH

THEIR NAMES, CLASSES, ORDERS, HISTORY, QUALITIES, CULTURE,
AND PHYSIOLOGICAL OBSERVATIONS.

BY

B. MAUND, F.L.S.

VOL. V.

“Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read and read,
And read again, and still find something new,
Something to please, and something to instruct.”
HURDIS.

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PREFACE.

IT is not an unpleasing task to meet, as it were, a multitude of friends, and have with them a few moments converse in a bien-nial preface. There are hundreds amongst our readers and correspondents with whom we could wish the intercourse were more reciprocal. Whether the limit of our action be narrow or extended, we hope, however, to do as hitherto—to adhere to the true representation of nature, give extensive information to the cultivator and the naturalist, and never to lose sight of the first great cause.

It may be unnecessary to recapitulate our labours. They are already before our readers—the legitimate judges. Their sentence can annihilate or animate. This being our position, it is with no common feelings of pleasure and gratitude, that through the progress of ten years, we have found the sunshine of public favour glow with increasing brightness on the flowers of our Botanic Garden. An influence so genial will necessarily stimulate their growth, although aphides and innumerable larvæ may swarm in their precincts.

The progressive encouragement of our friends, enabled us, nearly two years ago, to give practical proof of their favours, by adding the Auctarium, as a means of registering miscellaneous directions and discoveries, which could not, conveniently, be combined under the regular subjects of the work. By condensing our matter, we have, it is hoped, already brought together, in small compass, a considerable mass of interesting and

useful information, as a depository of easy reference, that will ultimately prove of high value to the horticulturist, and the philosopher.

A continued and still augmented patronage now enables us to offer to our subscribers another tribute of gratitude. In a pecuniary point of view the most unprecedented success alone could warrant a further enlargement of our work. As, however, it would be advantageous to every cultivator of flowers, to possess a regular record of every new plant, as it is introduced or becomes known in Great Britain, we have made arrangements for adding to each subsequent number of the Botanic Garden, a Floral Register, in addition to the Auctarium. In this we intend to give, monthly, every requisite particular of nearly twenty newly introduced or interesting plants, belonging either to the stove, the greenhouse, or the open garden; and we hope to illustrate it in a manner that shall render it, ultimately, one of the most complete works of reference ever attempted in this department of science. Like the Auctarium, it is intended for separation from the Botanic Garden, to form an independent volume. Thus three distinct works will be proceeded with simultaneously, constituting a body of garden knowledge, in such forms, as we trust, will be considered unique.

By these arrangements we may hope to afford some assistance in the universal search after knowledge. Little, however, can the most ardent pursuit of man attain; for, as Dr. Roget so truly says, "Measured on the vast scale of the universe, the globe we inhabit appears but as an atom; and yet, within the compass of this atom, what an inexhaustible variety of objects is contained: what an endless diversity of phenomena is presented; what wonderful changes are occurring in rapid and perpetual succession! Throughout the whole series of terrestrial beings, what studied arrangements, what preconcerted adaptations, what multiplied evidences of intention, what signal proofs of beneficent design exist to attract our notice, to excite our curiosity, and to animate our inquiries."

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Potentilla atrosanguinea pedata.

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Wistaria frutescens.

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Gentiana cruciata

29



Geranium Lancastriense.

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POTENTILLA ATROSANGUI'NEA-PEDA'TA.

HYBRID POTENTILLA.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Hybrid origin.	Height. 18 inches.	Flowers in June, July.	Duration. Perennial.	Raised in 1831.
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No. 385.

The name, *Potentilla*, is deduced from the Latin word *potentia*, and signifies little power; a term used in allusion to the medicinal strength of the plant for which it was originally intended.

On the introduction of the doubly compound appellation *Atrosanguinea-pedata*, we may be expected to offer some remark. Authors have not agreed on the most convenient mode of naming hybrid or mule plants. Some have thought names may be completely arbitrary; some name them after the person with whom they originated; whilst others would altogether excommunicate such productions from botanical nomenclature. Notwithstanding the opposite theoretical position taken by some botanists, we believe, doubtlessly, that hybrid plants sometimes become established, and hold a permanent place in the vegetable kingdom; it is therefore but reasonable to notice them; and it is far better that their origin be registered whilst it is known, in lieu of remaining to become the subject of future conjecture and error. We have taken the trivial names of the two parent species of this hybrid plant, as a compound name for it; and although

rather cumbrous, this inconvenience is more than counterbalanced by the advantage that it is explanatory of its hybrid origin. The female parent ought, we think, to hold the first place in such compounded name.

We raised it from seed of the *Potentilla atrosanguinea*, fertilized with pollen of *Potentilla pedata*, and we believe a more perfect mixture of two distinct and dissimilar species is not known. The dark red of the one, and full yellow of the other, are well mingled, and produce a rich deep orange. The foliage also of it is intermediate between that of its two parents, as shown by the engraving.

In the year 1830, we fertilized flowers of each of the *Potentillas*, the *atrosanguinea*, *formosa*, and *pedata*, with pollen of the other two, separately. In each instance their anthers were destroyed before they had burst, the pollen of one of the other species applied to the stigma, and the flower then secured from insects, by a covering of gauze. Out of upwards of two hundred plants thus obtained from *Potentilla formosa*, not one was sufficiently altered to merit notice. Nearly all those from *Potentilla atrosanguinea*, were somewhat improved. From *Potentilla pedata*, we obtained very few seeds. It is not a free seeding species with its own farina, and far less so under a privation of it. The plants from it were remarkably luxuriant, and its blossoms large, but otherwise they showed but little variation.

The novel colour of this new hybrid flower, renders it very desirable. The plant is slender, like that of *Potentilla pedata*, and in culture may be expected to require no peculiar attention.

WISTARIA FRUTESCENS.

FRUTESCENT WISTARIA.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of N. America.	Height. 10 feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1724.
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No. 386.

This plant was named in honour of Caspar Wistar, a scientific professor at Pennsylvania. *Frutescens* from the Latin, signifying shrubby.

It is a beautiful climber, which, like its congener, *Wistaria Consequana*, formerly *Glycine Sinensis*, spreads more slowly through English gardens, than in these days of botanical vigilance would be imagined. Their having been known as greenhouse plants, seems to have formed a bar to the extension of their acquaintance as hardy climbing shrubs. The *Wistaria frutescens* is, however, perfectly so, and from its great beauty should have a place in every garden, where a wall with a good aspect can be allotted to its growth. It is more hardy than *Wistaria Consequana*, and its flowers being produced later in the season, they are less liable to injury from spring frosts.

Planted in loam and peat, against a southerly wall, it will grow very freely, and the cultivator may expect to be highly gratified by its rich display of beautiful flowers. It is usually propagated by cuttings of the young wood, planted in sand, or very sandy compost, on a hotbed, under a hand-glass.

Hort. Kew. 2, v. 4, 298.

GENTIANA CRUCIATA.

CROSSWORT, OR CROSSED GENTIAN.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
GENTIANEÆ.

Native of Austria.	Height. 9 inches.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1596.
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No. 387.

The name of this genus of beautiful plants appears to have originated, indirectly, from the virtues of *Gentiana lutea*, which has long been known as a powerful tonic and febrifuge. The Illyrian king, *Gentius*, after whom it was named, is said to have discovered these virtues; hence we may conceive that kings of olden time had much less of the cares of state to occupy their minds than fall to the share of modern monarchs. The pleasures of a quiet pursuit, or a peaceful science like botany, can rarely, in the present day, we fear, be indulged in by the rulers of nations. *Cruciata*, from the Latin *crux*, signifying cross; a name formed on the crossed position of its foliage.

This low free-growing herbaceous plant, is well adapted for ornamenting the fronts of borders and mounts; but it has not the advantage of some others of the same genus, in affording an evergreen embellishment of bright green leaves to enliven the little garden landscape of winter.

It will grow in any common soil, and seems to prefer a rather cool and moist situation. It may be divided in spring or autumn.

Hort. Kew. 2, v. 2, 113.

GERA'NIUM LANCASTRIEN'SE.

LANCASTER CRANE'S-BILL.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
GERANIACEÆ.

Native of Britain.	Height. 9 inches.	Flowers in June, Oct.	Duration. Perennial.	Inhabits Rocks.
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No. 388.

Geranium is derived from the Greek GERANOS, a crane. The shape of the seed vessel, has been, aptly enough, compared to the head and long beak of that bird. Lancastriense, from its being indigenous to Lancashire.

The genus Geranium, is now confined to such of the plants, originally so called, as possess ten perfect stamens. By such division, all those beautiful subjects, generally known by this name, which have been cultivated in the green-house, or more intimately domesticated in the dwelling-house, form another genus, under the name of Pelargonium. These have but seven fertile stamens.

Geranium Lancastriense has, by some authors, been considered a variety only of Geranium sanguineum. The union of it to that species would do no violence to botanical description, but its general habit, and permanence of character, under cultivation, incline us to follow nature rather than science in the distinction. It is a very desirable little plant, always in flower during summer.

It may be readily increased by cuttings, planted under a hand-glass, on a shady border.

Hort. Kew. 2, v. 4, 184.



Coreopsis Atkinsoniana.

79



Verbena alata.

80



Collinsia grandiflora

81



Collomia grandiflora.

82

COREOPSIS ATKINSONIANA.

ATKINSON'S COREOPSIS.

Class.
SYNGENESIA.

Order.
POLYGAMIA FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of Columbia.	Height. 3 feet.	Flowers in August.	Duration. Perennial.	Introduced in 1826.
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No. 389.

The word Coreopsis is derived from the two Greek words, CORIS, a bug; and OPSIS, appearance, or resemblance; in allusion to the shape of the seeds of some of its species. The same idea originated the term tick-seed sun-flower, which has sometimes been used as an English name for this genus. *Atkinsoniana*, is a name given to this species by Douglass, as a mark of respect to W. Atkinson, Esq. of Grove End, whose talents are well known in the neighbourhood of the metropolis, in connexion with improvements in heating and ventilating hot-houses.

In a former part of our work we had occasion to admire and recommend the *Coreopsis tinctoria*, a beautiful plant, of annual growth only. Its golden petals and rich dark eye soon rivetted, we may say public, attention, and every body enquired for, and obtained it. From the same inexhaustible source, North America, we now present its counterpart, but under a perennial character. Surely, without betraying undue enthusiasm, the botanist may well exclaim, wherefore such profuse diversity in nature? or why such distinction in the duration of plant or of flower? The very mention of floral duration opens

a wide range of thought, which cannot have escaped the observation of apathy itself. In the study of nature, man is often permitted to see the adaptation of one part of her works to that of another, either in position, or in action; but the rationale of the whole as a system is hidden from his view. Why, it may be asked, do we see the *tradesantia Virginica* spread wide her petals to the scorching sun, and fade in the evening dew; whilst the *œnothera tetraptera* bursts her confinement to welcome the vesper breeze, but when the rays of morning reach her snowy bosom, she blushes and dies? Why does the splendour of the lily continue fifty times as long as the beauty of the *tigridia*? Or, the tulip expose its gradually-ripening beauty through weeks of anticipation, whilst the iris bursts forth at once in all its splendour? These are contemplations befitting man as a rational being, placed as he is in the midst of creative wisdom. How quickly does it reduce him to a proper place in his own estimation!

The *Coreopsis Atkinsoniana* may be divided at the root for increase, in March or April; or propagated from seeds. These should be sown in the spring; and the young plants, when of about two inches growth, should be transplanted into beds, at from six to nine inches apart. Here they will become strong, and their radical leaves increased, but will not flower till the following summer. In the spring they should be removed from the nursery bed to the borders and ornamental compartments, for flowering; where the only care demanded will be support to the stems, to prevent their scattering as they attain maturity.

VERBENA ALATA.

WINGED-STEMMED Vervain.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
VERBENACEÆ.

Native of Mont.Video.	Height. 5 feet.	Flowers in Aug. Sept.	Duration. Perennial.	Introduced in 1828.
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No. 390.

The Celtic name *ferfaen*, has been thought by some to be the root whence our *Verbena* has sprung; but this is somewhat uncertain. The Latins have the very term *Verbena*, which they applied to herbs, or, as Pliny says, a tuft of grass, used in Roman sacrifices. *Alata*, from the Latin, winged; which appellation is usually applied to such stems of herbaceous plants as have the cortical covering of their angles dilated into a membranous leafy texture. The *Aminobium alatum* is a more perfect example of the winged stalk than the plant before us.

This species of *Verbena* far outstrips, in height, most others of the same genus. In a rich light soil it will attain six feet in height; and although its flowers are not very conspicuous, it becomes a bold and handsome plant. As it is not of bushy or umbrageous character, its height need not be an obstacle to its occupying a place amongst lesser subjects, where it should have the support of a neat iron stake.

It may be raised from seeds, or occasionally increased by division of its roots. A little protection should be afforded it in winter, if frosts be severe.

COLLIN'SIA GRANDIFLO'RA.

LARGE-FLOWERED COLLINSIA.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of N. America.	Height. 1 foot.	Flowers in May, July.	Duration. Perennial.	Introduced in 1828.
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No. 391.

Nuttall, the author of the Genera of North America, established the name of this genus in honour of Zacheus Collins of Philadelphia. Grandiflora, from the Latin grandis, great; and flos, a flower.

This is one, amongst others, of the great number of beautiful plants lately introduced to this country from North America; but one that requires an intimate acquaintance. It does not salute its admirers at a garden's length, but lowly and modest, it reclines on its home, and invites the hand to raise it, the eye to inspect its party-coloured flowers, which are disposed in whorls, as rustic damsels were wont to garnish the village may pole.

Being low and somewhat recumbent, it may be grown in patches near the front of the parterre. Seeds may be sown in spring, in the open ground. Or, if sown in August, and afforded a little protection, in severe weather, the plants will flower early in the following summer. The recumbent stems will sometimes strike root, and the stimulus thereby obtained, will induce a renewed growth, and occasion the plants, in favourable situations, to continue through the winter and blossom in May.

Bot. Reg. 1107.

COLLO'MIA GRANDIFLO'RA.

LARGE-FLOWERED COLLOMIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Native of N.America.	Height. 2½ feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1831.
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No. 392.

Collomia, from the Greek word KOLLA, signifying glue. The term was applied in allusion to a mucilaginous secretion which is found on the seeds of Collomia.

This plant is of upright growth, and its lateral branches never grow inconveniently diffuse. The soft buff tint of its flowers, being of rare occurrence in the garden, excepting in some species of honeysuckle, renders it desirable as a novelty in this particular. It is of the most easy culture and free growth, for should its seeds be shed from the parent plant, when ripe, they will quickly spring up, and bid defiance to all the severities of winter; and of course will flower earlier in the succeeding summer, than those produced by spring sowing.

We trace, in the Collomia, a propensity not uncommonly met with in human nature. When living under the most favourable circumstances it produces its flowers most sparingly. They are then but dotted over its hemispherical head, two or three at a time; but if it be grown in very poor soil, or its roots confined in pots, plunged in the borders, its flowering will be much more free.

Bot. Reg. 1174.



Neja gracilis.

1/2



Zinnia tenuiflora.

1/2



Phlox Wheeleriana.

1/2



Eryngium Bourgaui.

1/2

NE'JA GRA'CILIS.

SLENDER NEJA.

Class.
SYNGENESIA

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Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Mexico.	Height. 1 foot.	Flowers in Aug. Sept.	Duration. Perennial.	Introduced in 1828.
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No. 393.

It does not often fall to our lot to publish a generic name which is acknowledged, by its author, to have no other meaning than the name of a plant. We are so much in the habit of looking for derivations that the question naturally arises—why did Mr. David Don, the originator of the term Neja, make choice of these four identical letters, to form a non-descript name? The word being wholly unlike the comprehensive Greek pollysyllabic terms, we are reduced to the extremity of Mr. Dodd, with his text “Malt,”—to consider its letters, which, in true English, mean JANE, most probably a female friend of Mr. Don; and this, apart from all jocularity, is the only origin we can divine.

If that name be best which in no degree characterizes the genus it represents, the same will hold good with specific names, for confusion may attach even to Mr. Don's adopted one, gracilis, by a more slender species being hereafter discovered.

We are aware that some modern botanists advocate the use of unmeaning words, as generic names. This preference has, doubtless, arisen out of the misapplication of old appellations. They have

been applied to plants for which they were not originally intended; and confusion of ideas has been a consequence of such misuse.

A genus is a collection of species, which possess some character in common. Whenever a name indicative of such character can be given it must be, of all others, the most useful. Or, if this be not strictly adhered to, the name may at least be formed in allusion to some prominent mark or quality of the genus. The most eminent botanists have been desirous that every generic name should carry some positive information. The Greeks were studiously attentive to this point, unless the title of a divinity or hero claimed their notice.

If botanical definition cannot be conveniently woven into appellations, generic names may be made either to commemorate personages who have been eminent for their zeal in any praiseworthy pursuit; or events which are worthy of note. A flower, by its name, may then recall to mind a volume of events; and thus, in future ages, would the piety, industry, and magnanimous actions of the great, be the more frequently resuscitated for imitation; or the deformity of vice and folly be presented to the mind, in circumstances otherwise forgotten.

The *Neja gracilis* is a compact little undershrub or suffrutescent plant; that is, with woody root and herbaceous stems. It produces an abundance of flowers, spreads but little, and has a neat appearance in the borders. Cuttings of it strike root readily, on a little artificial heat; and the plant will grow in any common soil, but it must be protected from sharp frosts in winter.

Sweet's Fl. Gar.

ZIN'NIA TENUIFLO'RA.

NARROW-PETALED ZINNIA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Mexico.	Height. 2 feet.	Flowers in July, Sept.	Duration. Annual.	Introduced in 1799.
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No. 394.

The name Zinnia is derived from that of Dr. John Godfrey Zinn, of Gottingen, where he was professor both of physic and botany. Though he died at the age of thirty-two, his experiments on the brain, to ascertain its sensibility; and also on the eye, which were published in 1755, have entitled him to permanent respect. Tenuiflora, is compounded from the Latin tenuis, narrow; and flos, a flower.

The narrow petals of this species sufficiently characterize it. If less bold than the other species which we have previously noticed, its flowers are more brilliant in colour. It is a pleasing annual, and continues long in flower.

This plant is far best raised on a hotbed, for it sometimes happens that when its seeds are trusted to the open borders, the young plants, in an unpropitious season, become dwarfed, and flower at less than one fourth of their natural height. They should be carefully transplanted to their final situation whilst very young. The finest plants are generally grown on a rich loamy soil, which is not peculiarly dry, but in a warm aspect.

Hort. Kew. 2, v. 5, 93.

PHLOX WHEELERIA'NA.

WHEELER'S PHLOX.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Hybrid origin.	Height. 3 feet.	Flowers in June, Sept.	Duration. Perennial.	Raised in 1824.
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No. 395.

Phlox is a Greek word, signifying flame, and intended, most probably, to indicate a glowing colour. Wheeleriana, is a name given to this hybrid plant after that of the person who raised it, Mr. Wheeler, nurseryman, of Warminster.

The delicate tint of the flowers of this plant, with its central shading, make it as desirable as any one in the present long list of Phloxes, so many of which have now established themselves in almost every flower garden.

We would recommend those of our readers who happen not to be fully acquainted with this genus to lose no opportunity of increasing their collection of them. They are, every one of them, from those of three inches high, to those of six feet, highly ornamental and showy.

None of the tall species are peculiarly fastidious as respects the soil or aspect in which they are planted; but it is somewhat important, particularly if planted in a light or peaty soil, that they be occasionally taken up, in spring, the roots divided, and replanted. It will add much to the luxuriance of their growth.

ERYN'GIUM BOURGATI.

BOURGATI'S ERYNGO.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
UMBELLIFERE.

Native of S. France.	Height. 2 feet.	Flowers in July.	Duration. Perennial.	Introduced in 1731.
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No. 396.

The word Eryngium is from ERRIGION of Dioscorides, the derivation of which is uncertain. The Greek ERYGGANO, to eructate, was thought by professor Martyn, an origin too silly to repeat. Bourgati, from the name of an eminent theologian and naturalist of Switzerland.

The different species of Eryngo are known indiscriminately by the name of sea holly. This term legitimately belongs only to our native species, the Eryngium maritimum, which grows abundantly on some parts of the sea coast, where its leaves are very ornamental, and somewhat similar to those of the species before us.

The singular blue or amethystine tint displayed by several species of Eryngo, and their peculiar foliage, have occasioned their introduction into most gardens, and the variety they afford is pleasing.

It is stated by Villars, that the Eryngium Bourgati continues several years before it flowers, and after flowering dies. This was the case with our plant, but we have had only a single example. We mention this that the cultivator may not omit a timely division of it. It requires no peculiar care.

London's Ency. of Plants.



Lychnis flos Jovis

72



Scutellaria alpina

73



Anagallis monella

74



Celsia Cretica

75

LYCHNIS FLOS JOVIS.

UMBELLATE ROSE CAMPION.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CARYOPHYLLÆ.

Native of Germany.	Height. 2 feet.	Flowers in July.	Duration. Perennial.	Cultivated in 1726.
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No. 397.

The term *Lychnis*, from the Greek *LYCHNOS*, a lamp, perhaps, arose from wicks having been made of the woolly leaves of the original *Lychnis*. The name, *Flos Jovis*, or Jove's flower, seems somewhat too important. Its use has, however, been sanctified by time. It was applied by the old botanists, whose reasons for its adoption, had, probably, a reference to some mythological fiction which has escaped from tradition, as its author has from existence.

This plant was formerly known as the *Agrostemma flos Jovis*. The difference between the genera *Agrostemma* and *Lychnis*, which was principally founded on the division of the petals, and number of the cells of the capsule, has been found so anomalous, that it has been thought best to unite these genera under *Lychnis*.

We are glad to introduce this old favourite to the notice of the present generation, for it seems either to have escaped observation, or to have met with unmerited neglect.

It is perfectly hardy. It may be raised from seeds; divided; or struck from cuttings of the flower stem before they begin to flower.

ANAGALLIS MONELLI.

MONELLI'S PIMPERNEL.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of Italy.	Height. 9 inches.	Flowers in June, Sept.	Duration. Perennial.	Cultivated in 1648.
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No. 399.

Anagallis, from the Greek ANAGELAO, to laugh, from its exhilarating properties. Monelli, the name of an Italian botanist.

We have been requested to notice the leading ancient botanists. We here concisely do so.

Aristotle was the first of the ancient Greek philosophers, of whose works much is known. He was descended through a long line of ancestry, from Æsculapius, the pupil of Chiron, the wise Centaur, who also instructed Hercules and Achilles, twelve Hundred years before Christ. These heroes and philosophers having been deified, their names are mixed up with fables which bore morals that cannot now be fully explained. Theophrastus, the pupil of Aristotle, lived about three centuries before Christ. From Theophrastus we have, at the present day, many botanical names; but from Dioscorides, who lived two centuries later, we have not only names, but descriptions, and the virtues of plants, as they were then estimated.

Pliny, in the first century of the Christian era, wrote his Natural History, in which he copied much of Dioscorides. In the succeeding century to Pliny,

Galen, the celebrated physician, wrote extensively on the medicinal properties of vegetables, and added greatly to Dioscorides and Pliny. The succeeding twelve hundred years, present little more than a blank to the scientific mind. About the year 1430 printing was invented, and knowledge darted to all quarters, as rays of light. In France and Germany, several herbals appeared almost immediately, but it was not till the year 1551 that an English work of originality was published. This was from the pen of Dr. William Turner, of whom much may be said, as a man of talent. Neither he nor the Greeks studied plants for the sole purpose of classification and naming, but to discover their virtues, which it may be hoped will again claim attention, when there shall have been enough of sorting and distribution to satisfy modern science.

We give a specimen of Turner's work. On our native Pimpernel he says, 'The iuyee gargled in the throte and mouth, purgeth the heade of flemme, and the same poured into the nose thrylle, that is of the other syde of the head there y^e tuth ake is in, taketh y^e payne awaye.'

After Turner, Gerard, in 1597, and Parkinson, in 1640, are prominent herbalists, and may be called the last of the old school. Philip Miller, in 1724, published the first edition of his Dictionary, from which a new botanical era arose.

Monelli's Pimpernel, though not boasting the virtues of Turner's, is a beautiful ornament for summer culture in the borders. It strikes readily from cuttings, but it must have winter protection.

CEL'SIA CRE'TICA.

CRETAN CELSIA.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SOLANÆÆ.

Native of Crete.	Height. 5 feet.	Flowers in July, Sept.	Duration. Biennial.	Cultivated in 1752.
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No. 400.

The present generic name, *Celsia*, was adopted by Linneus, in honour of his friend Celsius, the Greek professor in the university of Upsal. Linneus must have had much satisfaction in this, and every other, tribute of gratitude, which opportunity afforded him of evincing towards so early and disinterested a friend as Celsius. Cretica, from Crete, an island of the Mediterranean, now called Candia, whence it was introduced into this country.

This is a showy and beautiful biennial plant, that should have a place in every garden. It is upright in growth, requires only the support of a small stick, as a protection against winds; and as it increases in height, continues its flowering through the latter part of the summer.

Its seeds should be sown in April, in the open ground. The young plants will probably require thinning; and at any time from June to September may be planted where they are intended to flower the following year. It produces abundance of seed, and any back border will suffice for its first summer's growth; observing that it be kept free from weeds.

Hort. Kew. 2, v. 4, 27.







Lophospermum erabeseens.

72



Gaillardia aristata

73



Delphinium mesoleucum

74



Lablab vulgaris.

75

LOPHOSPERMUM ERUBESCENS.

BLUSHING LOPHOSPERMUM.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Jalapa.	12 feet.	June, Sep.	Perennial.	in 1830.

No. 401.

The name, *Lophospermum*, is deduced from the Greek *LOPHOS*, a crest; and *SPERMA*, a seed, in allusion to the little membranous crest, or margin, of the seed. *Erubescens*, blushing, from the Latin, indicative of the tint of the flower.

On the introduction of this plant amongst us, it was thought to be the *Lophospermum scandens*, of Mr. D. Don; consequently, this name was first circulated with it, and thereby fixed on the mind, in association with the first impression of its beauty. When such first impression of a name is made on the memory, though it may have been held there but little time, it is not readily displaced by a new one; unless such new name carry with it a clear idea of some distinctive mark which separates the plant from the one with which it has been confused. When this is the case, the name presents itself in combination with an object of sense; and, of course, the visible object of perception will assist in reviving the object of memory. We are aware of the difficulties which present themselves, in fixing a botanical nomenclature, but oftentimes much may be done where it is not attempted.

The *Lophospermum* was collected by two German botanists, in the thickets of Jalapa, where it is said to be rather rare. It is a valuable acquisition to our list of ornamental climbing plants. It grows freely, and its flowers are large and handsome, such as are afforded but by very few climbers which can be exposed on open walls during summer; we say during summer, for though this plant has been said to bear the same treatment and exposure as the *Calampelis scabra*, our experience warrants no such conclusion. We have had it exposed, during winter, by the side of the *Calampelis*, when the latter plant has lived uninjured, and in verdure, whilst the *Lophospermum* was destroyed by a very slight frost. The same has occurred in other gardens besides our own. Seeing this to be the fact, the present plant can only be recommended as proper for summer training in the open garden; and as such, from its free growth, and gay flowers, it is highly desirable.

This delicacy of habit is the less to be regretted, inasmuch as young plants can be most readily struck from cuttings, and also propagated from seeds, which are ripened in abundance. Cuttings may be planted about Midsummer, in a pot of very sandy compost, covered with a small bell-glass, or tumbler, and placed in a hotbed; where they will soon make root, and afterwards bear full exposure till October; after which time the pots should be taken into an airy room, during winter. Early in May, turn out the plants for training against a wall or trellis work. Seedlings should be similarly protected.

GAILAR'DIA ARISTA'TA.

AWNED GAILARDIA.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of N.America.	Height. 2 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1812.
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No. 402.

It has been suggested that the spelling of this name should be Gailardia, instead of Galardia, as formerly used; it being more in conformity with the orthography of the French botanist's name, from which it was deduced. Aristata, from the Latin, signifying a bristle or awn, which is an appendage connected with the fructification of this plant.

The Gailardia aristata is a showy herbaceous plant, of easy culture, and consequently desirable for the mingled flower garden. It increases moderately, so that a sufficient stock may generally be obtained by a division of its roots; but if this be not the case, as it ripens seeds, an additional increase may be obtained from these. Its flower stems have not sufficient strength to withstand the effects of wind and showers, without the assistance of a small stick, to which they should be neatly tied, when at half their full growth.

Spring is much the best season for dividing its roots. A light and rather dry soil should be chosen for them. Raise seedling plants in April; transplant them to a nursery bed, when an inch high; and finally, in the following spring, for flowering.

Bot. Reg. 1186.

DELPHINIUM MESOLEUCUM.

、 WHITE-CENTRED LARKSPUR.

Class.
POLYANDRIA.

Order.
TRIGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of N. Europe.	Height. 4 feet.	Flowers in July.	Duration. Perennial.	Cultivated in 1822.
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No. 403.

The Greek word, DELPHINION, was used by Dioscorides; who, probably, applied it to a species of aconite. The ancients were fertile in fancy, and as their descriptive acumen did not rest on such minute distinctions as prevail at the present day, their minds were left more freely to the indulgence of whimsical notions. The flower bud of the Delphinium they imagined like a dolphin, and named it accordingly. Mesoleueum, from the Greek ME-SOS, middle; and LEUKOS, white. The curved neetary of the flower will readily show the application of our English name, Larkspur.

There are very few plants more deserving of cultivation than the various species of Larkspur. Who has not admired the numberless delicate tints of the crowd of blossoms borne by the Delphinium Ajacis, or Rocket Larkspur? which has sometimes flowers of distinctly different colours on the same stem. Or who that has seen the varieties of Delphinium elatum, or Bee Larkspur, elevating themselves to the height of 7 or 8 feet, with spikes of flowers half their length, has not stood in admiration. Our present species is somewhat inferior in height, but

exceeds the elatum in the brilliancy of its flowers. It is greatly enlivened by the contrast which its white centre yields to its fine blue petals.

The infinite bounteousness of the beneficent Author of all these beauties exceeds human comprehension. Well may the poet expatiate on such munificence,

——“ Nature, with a liberal hand,
Flings wide her stores o’er sea and land.
If gold she give, not single grains
Are scatter’d far across the plains ;
But lo, the desert streams are roll’d
O’er precious beds of virgin gold.
If flowers she offer, wreaths are given
As countless as the stars of heaven :
Or music—’tis no feeble note
She bids along the valleys float ;
Ten thousand nameless melodies
In one full chorus swell the breeze.
Oh, Art is but a scanty rill
That genial seasons scarcely fill.
But Nature needs no tide’s return
To fill afresh her flowing urn :
She gathers all her rich supplies
Where never-failing waters rise.”

Flowers of all Hue.

We are glad to introduce the *Delphinium meso-leucum* to our readers, and feel quite sure that they will desire more intimate acquaintance with it ; for notwithstanding it is as hardy as the Bee Larkspur, still it is comparatively little known.

It is unnecessary to offer any remarks on its culture. It will grow in any common soil.

Flor. Consp. 29.

LAB'LAB VULGA'RIS.

COMMON LABLAB.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
E. Indies.	6 feet.	July. Aug.	Annual.	in 1794.

No. 404.

Lablab is the Arabic name of a climber, supposed to be the convolvulus. Our present plant is the *Dolichos lablab* of Linneus. His genus *Dolichos* contained many plants which it has been found indispensable to separate from it, on account of the disparity of their Legumes or seed vessels.

Most of these plants are natives of warm climates, such as the East and West Indies, and consequently have been retained amongst us as occupants of the stove or greenhouse. The efforts however, of the admirers of the open flower garden, have of late been crowned with great success. Many of those plants which formerly were only known as natural curiosities, in a hot air cabinet, are now seen, during our summer months, to luxuriate in the borders of the flower garden, or mounds of the lawn; where their possessors, at the same time as they imbibe pleasure in the contemplation of their beauty, imbibe health in a pure and exhilarating atmosphere.

The Lablab vulgaris, is now successfully cultivated, by raising seedling plants, in a hotbed, and turning them out, at the end of May, into a rich soil, in a warm situation.

Hort. Kew. 2, v. 4, 291.



Dolichos lignosus

75



Rudbeckia pinnata

76



Narcissus angustifolia

77



Rhododendron Catawbiense

78

DOLICHOS LIGNOSUS.

WOODY DOLICHOS.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of E. Indies.	Height. 8 feet.	Flowers in August.	Duration. Perennial.	Introduced in 1776.
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No. 405.

Dolichos is a Greek word, signifying long. The term has been said, by some authors, to apply to the tall climbing stems of the plant; but this is less probable than that it bore allusion to the seed pods of some of its species, which attain the length of two feet, and form a most striking character. Lignosus, from the Latin lignum, wood; adopted to mark its woody stems.

The present plant is nearly related to our last subject, the *Lablab vulgaris*, and is also native of the same hot climate. It has successively been the nursling of the stove, the green-house, and the open garden; and in its perennial character, in sheltered situations, has been proved to bear our milder winters. We are the more anxious to introduce it on account of the paucity of climbers that are moderately hardy; and also, on account of the beauty they display when assisted by the various ornamental supports which are now introduced for the exclusive purpose of training and displaying them.

Two of the plants of this genus, the *Dolichos urens* and *Dolichos pruriens*, are important, medicinally considered, amongst the Indians. The latter

NARCIS'SUS ANGUSTIFOLIUS.

NARROW-LEAVED NARCISSUS.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDÆÆ.

Native of S. Europe.	Height. 1 foot.	Flowers in April, May.	Duration. Perennial.	Cultivated in 1626.
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No. 407.

The story of Narcissus, the fabled boy of the ancients, may, very possibly, have preceded the name being given to a flower, and thus it may have been used without reference to stupor, which it implies. Sec No. 225. Angustifolius, narrow-leaved.

Notwithstanding the leaves of our plant are represented as somewhat broader than is usual with *Narcissus angustifolius*, it will be difficult to decide on its being any other species. It is particularly ornamental, producing abundance of odoriferous flowers; and probably, if examined, without reference to rarity, and independently of other prejudice, will be acknowledged as not less beautiful than the most beautiful of this delightful genus.

This, and some other, species of *Narcissus*, often fail to perfect their flowers. Their spathes form a mere inflated bladder. This is indicative only of lack of moisture, which we find remedied by making the soil very firm about their roots, where they can have a surface covering of turf to prevent rapid evaporation. Their bulbs increase abundantly. When parting is required, it should be performed in autumn.

Hort. Kew. 2, v. 2, 214.

RHODODENDRON CATAWBIENSE.

CATAWBA RHODODENDRON.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICÆ.

Native of N. America.	Height. 3 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1809.
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No. 408.

Rhododendron, in the Greek language, signifies rose tree. Catawbiense, is derived from the name of the river Catawba, in North America, near which this species was discovered by Mr. Fraser.

Few shrubs are more desirable, either in the flower garden or the shrubbery, than the Rhododendron. Its bright evergreen foliage is always a luxury; and it has often been matter of regret, with persons of taste, that they have had so little success in the cultivation of this plant. Peat, or bog earth, is usually thought to be the most important ingredient in respect to soil. Doubtless, it possesses qualities very congenial to the nature of this shrub; but experience has shown that it will succeed, in some situations, without it; moisture, aspect, and shade, being primary considerations.

On its native hills, it flourishes in the greatest degree, on the northern side; it prevails near springs and rivers; and oftentimes, mixes with the underwood of forests. If these circumstances be held in recollection, and choice of situation be made accordingly, the Rhododendron will rarely fail to gratify its cultivator, by free growth and splendid flowers.

Loudon's Ency. of Pl. 358.



Spiraea bella.



Periploca Græca

72



Aster Sibirica.

23



Narcissus interjectus.

25

SPIRÆA BELLA.

PRETTY SPIRÆA.

Class.
ICOSANDRIA.

Order.
PENTAGYNIA.

Natural Order.
ROSACEÆ.

Native of Nepal.	Height. 3 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1818.
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No. 409.

The thin and pliant stems of some of the plants belonging to this genus, seem to have given rise to the origin and application of the present name, from the Greek SPEIRA, signifying a cord. Bella, from the Latin, pretty; and none will deny the propriety of the connexion of this name with so elegant a shrub as the one now described.

Its general habit is not greatly unlike that of the raspberry; producing long succulent bottom shoots, annually; part of which it will, generally, be best to cut away in the autumn, and give the remaining part proper support, by tying them to a slender stake; or to a trellis, against which they may be appropriately planted. Perhaps, the most elegant effect is produced in the flower garden, by this plant, when a single stem only is permitted to grow from each stool. This being shortened in winter, to about three fourths of its original height, and its lateral shoots left but a few inches long, it will emit its numerous flowering branches in June, and assume an airy gaiety, highly ornamental. It will show elegance in the parterre as Sir. Thomas Lawrence's paintings do in the picture gallery.

PERIPLO'CA GRÆ'CA.

GRECIAN PERIPLOCA.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
ASCLEPIADEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Syria.	20 feet.	July, Aug.	Perennial.	in 1597.

No. 410.

The name of this climbing and twining shrub is not inaptly derived from the Greek word PERIPLOKE, signifying an intertwining and intricacy. Its specific name marks its native country.

There are very few, we hope none, of the individuals amongst mankind, but possess some quality commendable in the estimation of the most fastidious portion of society. It is too true, however, that the evil will sometimes, counterbalance the good. Our vegetable inhabitants of the flower garden, fortunately, seldom exhibit any positively bad qualities, although a deficiency of attractive ones may be evident. The plant before us, for instance, is not rich in attractiveness of exterior, at first sight, but it has counterbalancing properties; its blossoms become highly interesting on more intimate acquaintance. Their colour is singular, and their formation more so. We seldom meet, in flowers, any appendage similar to the little inflected awns which seem carefully to unite in constituting a crown of protection over its parts of fructification. The parts of fructification too, themselves, indicate the most careful arrangement. The hoary-headed

anthers unite, and form a canopy over the stigma; which, itself, is dilated on the styles, as the cap of a mushroom on its stipe or stalk. Nicely enclosed beneath the whole structure, we find the important occupants—two small oval germens or incipient seed vessels, in the care of which is discovered such strong marks of the inexhaustible beneficence of an omnipotent Creator. Here is contrivance and execution immeasurably superior to man's proudest works of art; yet how carelessly he every day passes by similar productions; not deigning, perhaps, to look on them; or ignorant of their existence.

In another particular the *Periploca Græca* is superior to most plants; that is, in the perfection of its foliage. It is always untouched by insects; from which circumstance it may be inferred that the assertions of the old authors is not wholly without foundation. They call this plant dogbane, because, as they say, if eaten by dogs or living animals, it certainly kills them, unless an antidote be administered. This opinion prevailed before the christian era, but whether correct or otherwise we cannot say.

Its utility in assisting to cover trellis work or harbours, is evident; although it must not be forgotten that it is a deciduous shrub; and consequently should be used along with one that is evergreen. Where it is not required for such purpose it may be trained up a single support, round which it will twine in a direction contrary to the apparent course of the sun; and at any height required, may be trained out as an umbrella, where it will be shown to advantage. It may be propagated by layers; or very readily by cuttings, planted in March.

ASTER SIBIRICUS.

SIBERIAN ASTER.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Siberia.	Height. 2 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1768.
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No. 411.

The Greck word, ASTER, signifying a star, has been adopted to distinguish this extensive genus of plants, in allusion to their star-like blossoms. Sibiricus is applied to indicate the native country of the plant now represented.

The species of Aster, now in cultivation, are very numerous—upwards of one hundred and fifty, about two-thirds of which have been brought to this country from North America. They are divided into several sections, principally by the forms of their leaves, which somewhat facilitates the botanist's labour, but still considerable difficulty will arise in determining the species of so extensive a genus. Most of them are late-flowering plants, hence the name of Michaelmas Daisy, by which they are so frequently distinguished; and certainly, till the introduction of the Dahlia amongst us, many respectable gardens owed the chief of their autumnal gaiety to the Aster.

The Aster Sibiricus is a valuable species, of low growth, and larger flowers than most others. It may be transplanted at any season; requiring, of course, additional care if removed in summer.

Hort. Kew. 2, v. 5, 59.

NARCIS'SUS INTERJECTUS.

GREAT CURLED-CUPPED NARCISSUS.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDÆ.

Native of S. Europe.	Height. 1 foot.	Flowers in April.	Duration. Perennial.	Introduced in 1810.
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No. 412.

For the derivation of Narcissus, see 225. Interjectus, from the Latin, intervening, a term given by Mr. Haworth, to indicate its character as between two established species. This plant is the Philogyne interjecta, of that gentleman's arrangement.

This is a free-flowering species which exhibits great gaiety amongst its welcome companions of the vernal month, in which it flowers. Furnished, as the world now is, with concentrated preparations of all sorts, for medicinal purposes, we need not refer every vegetable simple to its table of supposed virtues, as did the ancients. Galen and his followers studied plants only to ascertain their medicinal properties; and Gerard notes the virtues of almost all that he mentions. Thus, the Narcissus is alluded to. "Galen saith, that the rootes of Narcissus haue such woonderful qualities in drying, that they consound, and glue together verie great gashes or cuts, as happen about the vaines, sinewes, and tendons. They have also, a certain wiping, cleausing, and attracting facultie."

The Narcissus interjectus may be planted in any common soil. A cool situation should be preferred.

Haworth's Narcis. Monog.



Lithospermum purpureo caeruleum.



Tetragonolobus siliquosus.



Gazania rigens



Nicotiana glauca.

LITHOSPERMUM PURPUREO-CÆRULEUM.

PURPLE AND BLUE GROMWELL.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINÆÆ.

Native of England.	Height. 1 foot.	Flowers in May, June.	Duration. Perennial.	Inhabits Chalky soil.
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No. 413.

The ancient word, *Lithospermum*, originated in the Greek *LITHOS*, a stone; and *SPERMA*, a seed. The compound specific term is translated in the English name. The meaning of the old word, *Gromwell*, is uncertain. It was sometimes called *pearl plant*, from its white seeds.

This is one amongst the prettiest native plants of which England can boast. Its changeable hue, and the brightness of its fine blue tints, when fully expanded, render it particularly attractive. Its flowering stems are rather short and upright, whilst its abortive stems run on the surface of the ground, twice or thrice the length of those which bear flowers. It rarely produces many seeds; and in no instance have we seen more than one succeed each flower, whilst the rudiments only of the other three remain in the calyx. Its seeds are singularly hard, glossy, and grey, like polished marble.

It should be planted near to the front of the parterre, that its little gay flowers might be fully exposed. Its trailing stems should be turned back, and hooked down, as layers, for increase. It grows freely in a light soil, mixed with old mortar.

TETRAGONOLOBUS SILIQUOSUS.

SQUARE-PODDED WINGED PEA.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	6 inches.	July, Aug.	Perennial.	in 1683.

No. 414.

The generic name before us is compounded of Greek words, signifying four-angled-pod, see No. 375. Siliquosus, alludes to the seed vessel forming a siliqua; that is, a long dry pod, having the seeds attached alternately to each seam which unites the valves or sides of the pod. Stocks, and other species of cheiranthus, are familiar examples. The legume, on the contrary, as our common pea, has them attached to one seam only. These are botanical distinctions which cannot have escaped the notice of even the careless observer.

The stems of this plant spread from the root, on the surface of the soil, whilst the extreme ends of the shoots and lateral branches are raised from four to six inches high; producing their yellow flowers through several successive weeks, which are succeeded by singularly-formed four-angled pods. It is nicely suited for ornamenting the lapidium, or stone border; where the plant, reclining on stones and spar, is shown to the greatest advantage.

Plant it in a dry situation. Divide in spring only, when it begins to vegetate. Sow seeds in April, in rich soil, and a warm situation.

Hort. Kew. 2, v. 4, 391.

GAZANIA RIGENS.

RIGID GAZANIA.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of C. G. Hope.	Height. 6 inches.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1755.
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No. 415.

This splendid little plant is named from the ancient Persian word, GAZA, signifying a royal treasure. Rigens, from the Latin, hard or stiff; intended to mark the rigidity of its foliage, or rather, that of the little spinous appendages on the margins of the leaves.

The Gazania rigens, was formerly known as the Gorteria rigens, and was long cultivated as one of the most beautiful of greenhouse plants. Later experience has proved it capable of standing as a frame plant; and even, in mild winters, and a dry situation, to bear full exposure. In the direct rays of the sun, it shines most conspicuously. Its delightfully brilliant golden flowers, with their interior black velvet band, studded as it were, with here and there a minute pearl, to heighten its effect, are exceeded but by few competitors for admiration.

Whilst in flower, slip off some of the offsets from its undermost parts. Plant them under a hand-glass, in a cool border, or in preference, on a hot-bed. When rooted, pot them in sandy compost, protect in a cold frame, during winter, and turn in to the borders in May.

Hort. Kew. 2, v. 5, 140.

NIEREMBER'GIA PHŒNI'CEA.

PURPLE NIEREMBERGIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
SOLANÆÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Buenos Ayre.	6 feet.	June, Oct.	Perennial.	in 1831.

No. 416.

Nierembergia, is a term adopted in honour of a Spanish jesuit of the name of Neirembergius. Phœnicea, from the Latin, or rather from the Greek, signifying purple. This plant has also been called *Salpiglossis integrifolia*, after Doctor Hooker, in Curtis's Magazine.

The name *Petunia* is now familiar to every one, from the general cultivation given to the white-flowering species, which we published under No. 208, as the *Petunia nyctaginiflora*. Our present plant differs from that, principally, in the form of its corolla, and the insertion of its stamens. This discrepancy Mr. Don has very properly thought insufficient to disconnect it from the genus *Petunia*. However, as *Petunia* is already separated from *Nierembergia* for the same reason, it becomes requisite, if the two plants in question be considered as of the same genus, to unite them under that of *Nierembergia*. We regret that any occasion should have arisen to remove these plants to a new genus, but as it occurs for the purpose of simplification, we most readily follow Mr. Don's arrangement.

Having disposed of the name, which our friends

must do botanists the justice to allow, is not wholly a fastidiousness about words, but arising out of forms and characters, which oftentimes baffle man's nicest acumen, we may now refer to the plant itself, as a garden ornament.

It will be readily acknowledged, by every one who has seen the *Nierembergia phœnicea* in perfection, that a more beautiful display of flowers is not afforded by any plant, of similar habit, in the open garden. Its growth resembles that of the *Nierembergia nyctaginiflora*, but it is somewhat more slender; and like that plant, is seen to much the greatest advantage when trained against a wall. Our plant was raised, early in the spring, from a cutting, forwarded in a hotbed, till the beginning of May, when it was a foot high, and then turned out of the pot into a light soil, against a wall of southern aspect. At the present moment, less than three months from its being placed there, it covers a space little less than twenty square feet; displays more than one hundred expanded blossoms; and we have not a doubt of its spreading over double that space before the close of summer, and showing at once treble its present number of beautiful purple flowers.

We have had no opportunity of exposing this plant to an English winter, but there cannot be a doubt of its being quite as hardy as the *nyctaginiflora*, which stands well, by being kept dry in a cold frame. Its flowers, generally, prove abortive, still here and there, on our plant, an ovary appears to be swelling. From seeds, sown early, in a hotbed, it would flower in autumn.



Collomia linearis.

73



Piptanthus Nepalensis.

74



Saxifraga aizoon



Salvia grandiflora.

75

COLLO'MIA LINEA'RIS.

LINEAR-LEAVED COLLOMIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Native of N. America.	Height. 1 foot.	Flowers in May, June.	Duration. Annual.	Introduced in 1826.
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No. 417.

This generic name, derived from the Greck word, KOLLA, glue, alludes to the secretion of a glue-like substance on its seeds, which hardens on their surface. If this exterior coating be moistened a little, it will, simply by pulling it to pieces, extend and separate itself into minute fibres, affording a good idea of the formation of silk from the soft flexible matter with which the silk-worm is supplied. Linearis, from its leaves being linear, or nearly of the same breadth throughout their length, excepting at their ends.

The bright rosy colour of the flowers of this annual, makes it more attractive than its congener, the Collomia grandiflora; and it promises to be nearly as hardy. Self-sown seeds vegetated and stood the last winter in the Birmingham Horticultural Society's Garden, which sufficiently determines the hardness of its character. Its first head of flowers is greatly superior to those of the lateral branches, which are rather inconspicuous, but are long continued in succession.

It should be sown in autumn and spring, to secure early and late flowers.

PIPTANTHUS NEPALEN'SIS.

NEPAL PIPTANTHUS.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LEGUMINOSÆ.

Native of Nepal.	Height. 8 feet.	Flowers in May, June.	Duration. Perennial.	Introduced in 1819.
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No. 418.

The generic name of this plant, *Piptanthus*, from the Greek *PIPTO*, to fall; and *ANTHOS*, a flower; was suggested by the falling off of its calyx, corolla, and stamens, altogether. This rather abruptly deciduous character, in slipping the whole floral envelope from the incipient seed vessel, will be better understood by an inspection of the plate, where a small pod is shown, after the disunion of the parts. *Nepalensis*, from its native country.

The *Piptanthus Nepalensis* is a handsome evergreen shrub, which deserves a situation in every respectable shrubbery. On its first introduction it was supposed to be too tender for our climate, but subsequent experience has shown that in a light dry soil it succeeds perfectly; and its racemes of yellow flowers, although not produced in great abundance by the plant, when mingled with its bright green leaves, contribute greatly to ornament the shrubbery in spring.

Should severe frost occur in the first winter after this shrub has been transplanted, we would recommend that a slight protection be given it. It is propagated by layers of the young branches.

Sweet's Fl. Gard. 264.

SAXIFRA'GA AIZOON.

MARGINATED SAXIFRAGE.

Class.
DECANDRIA.

Order.
DIGYNIA.

Natural Order.
SAXIFRAGEÆ.

Native of Alps of Eur.	Height. 9 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1731.
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No. 419.

Saxifraga is an old name compounded from the words *saxum*, *frango*, most probably on account of some real or supposed medicinal virtues of the plant, in breaking or destroying the stone in calculous and gravelly diseases. *Aizoon*, from the Greek *ÆI*, always; and *ZOON*, alive; a character, which may not inaptly be applied to the whole genus, consisting of nearly a hundred species.

If a single flower were not produced by any of this genus, almost every plant it contains would be valuable—would be ornamental. The beautiful evergreen tufts of some, compact as a velvet cushion; and the succulent motley leaves of others, wedge within wedge, to a central point, produce a lively variety, as well in winter as summer. They relieve the surface of the garden from that tameness and aridity which is wont to prevail, when wintry blasts have desolated its borders; and the gay visitants—the splendid offspring of summer, have fallen to decay.

Culture of the *Saxifraga aizoon* scarcely need be mentioned, as it will grow wherever a plant can be expected to grow.

Hort. Kew. 2, v. 3, 65.

SALVIA GRANDIFLO'RA.

GREAT-FLOWERED SAGE.

Class.
DIANDRIA.

Order.
MONOGYNIA.

Natural Order.
LABIATÆ.

Native of S. Europe.	Height. 2 feet.	Flowers in June, Sep.	Duration. Perennial.	Cultivated in 1616.
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No. 420.

Salvia is derived from the Latin *salvere*, to be in health. We owe this, like many other of our names, to the simplers of former ages; either to the ancient Greeks, or the more recent disciples of Galen, who esteemed it somewhat like heresy to step out of the vegetable kingdom to look for medicines to allay the sufferings of the diseased.

Several species of Sage were in high esteem amongst the ancients, but at the present day their virtues, if they possess any, are nearly forgotten. The *Salvia officinalis*, or common Sage, certainly retains a place in the estimation of the moderns, but it is in connexion with the antidotes to hunger, and not disease. Evelyn, in his *Acetaria*, published in 1699, writes in high praise of Sage. It is well to cast a glance backwards, occasionally, to see the notions of our forefathers, to compare them with our own, and to consider that at a like distance of time, in futurity, our successors may look upon us and our opinions, as equally trite and unworthy of regard. Vanity may intrude a difficulty against the belief that this will be the case; but none will dare to deny the possibility; and we may

venture to say probability, as regards very much of our present knowledge. But we must return to John Evelyn, Fellow of the Royal Society, and a man of eminent talent. He says, in the work to which we have referred, that the tops of Sage, well picked and washed, with the flowers, retain all the noble properties of the other hot plants; more especially for the head, memory, eyes, and all paralytic affections. In short, he says, it is endued with so many and wonderful properties, that the assiduous use of it is said to render men immortal.

Evelyn was really an eminent man in his day, but if his zeal lead away his discretion in any particular, it will be found in his *Acetaria*. This little work is, notwithstanding, a gem to the advocate of vegetable diet. He quotes his friend Cowley's lines,

Happy the Man, who from ambition freed,
A little Garden, little field does feed.
The field gives frugal nature what's requir'd;
The Garden what's luxuriously desir'd:
The specious evils of an anxious life,
He leaves to fools to be their endless strife.

And after treating extensively of numerous salad herbs and modes of dressing them, he says, some "directions are added to shew the plenty, riches, and variety, of the salad garden, and to justify what is asserted of the possibility of living (not unhappily) on herbs and plants, according to original and divine instruction, improved by time and long experience.

If it were requisite, the *Salvia grandiflora* could be propagated by cuttings of the young stems; but its increase at the root will generally suffice.

Hort. Kew. 2, v. 1, 54.





Viola tricolor.

23



Verbena radicans.

24



Himmelmanna himalaefolia.

25



Catananche caryophylla.

26



Viola tricolor.

29



Verbena radicans.

30



Ranunculus acris.

31



Catanthus caryophyllus.

32

VIOLA TRICOLOR.

Variety: Lady Bath.

HEARTSEASE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
VIOLARIÆ.

Native of Britain.	Height. 6 inches.	Flowers in April, Oct.	Duration. Perennial.	Inhabits Corn fields.
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No. 421.

Viola, the Latin name of the Violet, says Sir J. E. Smith, most probably originated in its Greek synonym *ION*. At least, the vague and forced etymologies of this word, for which Latin authors have ransacked their own language, prove it not to have come from thence. Nor are the explanations of the Greek much more satisfactory, though the fable of this plant having sprung up on purpose to be the food of the metamorphosed *IO*, is too poetical to be forgotten. Tricolor, three-coloured.

Very few flowers have excited more attention than the two species of Violet—the sweet-scented, and the Heartsease. They even rival the rose itself. Indeed the latter plant infinitely excels it, in the many endearing appellations which it enjoys. The name Heartsease is a volume in itself, and Kiss-at-the-garden-gate, must be acknowledged to be an elegant binding to it. Pansy, from the French name *pensées*, signifying thoughts, is also much used, with a great number of others, sufficiently ridiculous.

The individual variety of this beautiful ornament of the garden which our figure represents,

is known as the Lady Bath Heartsease; and was raised by Mr. Wheeler, of Warminster. We have seen no one which exceeds it in brilliancy and gaiety; but it must be allowed that some of those which are of purple and white only, possess greater delicacy of colouring, and also bear less resemblance to the adventitious progeny of this ever changeable flower. The fine large purples, and the clear white, should not be neglected; and in regard to party-coloured sorts in general, they are so numerous, so beautiful, and with such exalted names, that we really are unable to select any for exclusive commendation. Hybridisation, with some perennial species, has, probably, assisted in improving the habit and character of our little wild *viola tricolor*, and obtained for it so deserved a popularity.

Seeds of the Heartsease should be sown early in the autumn, and when the seedlings are of sufficient size, they should be transplanted to the beds in which they are intended to flower in the following spring. Cuttings of the Heartsease planted in April or May, and transplanted in September, become strong flowering plants in the ensuing spring. If the cuttings be put in early in September, and transplanted in the following April, they assume their principal gaiety in the latter part of summer and autumn. A rich light soil, and a rather cool and shady situation, with occasional watering in hot weather, will be found conducive to the production of fine and well coloured flowers. To strike cuttings, they should be planted in a shady border of light soil, but not covered with glass.

VERBENA RADICANS.

ROOTING VERVAIN.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
VERBENACEÆ.

Native of Chile.	Height. 6 inches.	Flowers in June, Sep.	Duration. Perennial.	Introduced in 1832.
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No. 422.

The name of this genus was one applied by the Romans to some of their altar herbs. Pliny's notice of it will be found under 277. Radicans, from the Latin radix, a root, is a term suggested by its habit of emitting roots from the joints of the stems.

Many new species of Verbena have been lately introduced to this country from America, all of which are pretty; but the Chamædrifolia, No. 293, is neither more nor less than splendid, from the intense brilliancy of its deep carmine flowers. The present new species is a prostrate plant, spreading pretty freely over the surface of the parterre.

The cultivator should ever avail himself of the dictates of nature. Here we see the stems protrude young roots. Increase is freely offered; but sometimes the joints are prevented from coming in contact with the soil, and the intention frustrated; therefore the stems should occasionally be fastened down, and an abundance of distinct plants will be obtained. Pot a few young ones in August, and keep them in a cold frame during winter. Turn them out in April, into a light rich soil and warm aspect, and they will quickly become ornamental.

HUNNEMANIA FUMARIÆFOLIA.

FUMITORY-LEAVED HUNNEMANIA.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
PAPAVERACEÆ.

Native of Mexico.	Height. 2½ feet.	Flowers in June, Sep.	Duration. Perennial.	Introduced in 1827.
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No. 423.

This genus was named by Robert Sweet, in honour of Mr. Hunneman, a gentleman intimately connected with natural history. He is the honorary agent in England, of the German Union, a society to which we have subscribed with much satisfaction. Its funds are expended in the collection of specimens in various departments of natural history, which are annually divided amongst its subscribers; and certainly, the minerals which have been distributed indicate careful management. The Hunnemanian somewhat resembles the Eschscholtzia, but its flower has rather the light of the glow-worm than the rich colouring of the deep yellow Eschscholtzia.

Sow its seeds in autumn. The young plants will bear full exposure through a mild winter; but, for security against disappointment, a pot of seedlings should have occasional protection. Although considered annual only, under greenhouse protection, it is perennial; and in the open borders also, it has, by care, been preserved through winter, even without the destruction of its stems. Cuttings do not root; nor is division generally practicable.

Sweet's Fl. Gard. 276.

CATANAN'CHE CÆRU'LEA.

Variety : bicolor.

TWO-COLOURED CATANANCHE.

Class.
SYNGENESIA.

Order.
POLYGAMIA ÆQUALIS.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Hybrid
S. Europe.	2½ feet.	July, Sep.	Perennial.	origin.

No. 424.

The word, Catananche, is compounded from the Greek language, to imply compulsion, or powerful impulse; in allusion to an imaginary quality formerly attributed to it. The specific name, Cærulea, signifying blue, was given to the original plant, which we have published under No. 15; from seeds of which the present variety originated, in the garden of Mr. Smith, nurseryman, of Worcester. Its colour renders its name somewhat paradoxical.

Innumerable seedlings have been raised from this novel variety, but their flowers invariably depart from the colour of their immediate parent, and follow that of their original progenitor, the blue variety. The consequences of such circumstance may not be important, but the fact is, surely, worthy of a moment's reflection from rational beings. We see the apparent incident, and ask ourselves if it be mere casualty. Who can reply? or who will tell us how it has been effected? None need proceed further to be satisfied of his own ignorance, and to induce reliance on that power which alike guides even the tint of a flower and the destinies of man and of the universe.

Hort. Kew. 2, v. 4, 469.



Dianthus superbus.

$\frac{1}{2}$



Lilium maritimum.

$\frac{1}{2}$



Tropaeolum majus

$\frac{1}{2}$



Eryngium alpinum.

$\frac{1}{2}$

DIANTHUS SUPERBUS.

SUPERB PINK.

Class.
DECANDRIA.

Order.
TRIGYNIA.

Natural Order.
CARYOPHYLLÆÆ.

Native of Europe.	Height. 2½ feet.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1596.
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No. 425.

The Greek words, DIOS, of Jove; and ANTHOS, a flower, form a distinguished title for this genus. Linncus must have been strongly impressed with the beauty of Pinks and Carnations when he adopted it; and, perhaps, no one will venture to assert that his preference was undeserved. From the familiarity which every one has with these flowers, there exists a difficulty of forming a just estimate of their rank in floral society. If they bore the fragrance of the fabled groves of the East, and a condensation of all the beauties of the Garden of Eden, they could not perpetually move our admiration. Novelty obtains a prior claim. A new plant—a fresh and an unthought-of combination of colours and vegetable tissue, may well strike our imagination. Hence the delights of a garden, delights which few, who can fully appreciate, would barter for benefits far more substantial.

It may, probably, be asked why this species is called superb. Its flowers it must be admitted are less so than many others of the genus, but it must be recollected, that the term is continued from the old authors, who compared it with Pinks only,

which are more diminutive. Its height, generally, exceeds even that of the Carnation.

Old authors extol this species for its fragrance. Parkinson calls it the feathered Pink of Austria, and says it is of a most fragrant scent, comforting the spirits and senses afar off; and Curtis justly observes that a few of its flowers communicate to a nosegay a delicate and most delicious smell; or placed in a vial of water, they will even scent a small apartment. There is a white variety of this plant, but it is not oftentimes met with, although, formerly it was the most common of the two.

The *Dianthus superbus* is of short duration, which accounts for its scarcity in small collections. It should be propagated annually, by layers, or by cuttings; or, which is far better, from seeds. Professor Martyn says it deserves a place in every curious garden, on account of the elegance and the delicious fragrance of its flowers; and also, that it grows naturally in a calcareous soil, and will thrive luxuriantly in a garden, if chalk be mixed with the common mould, but not otherwise. We doubt not but this admixture may frequently be useful, but we have seen it grow luxuriantly in a well manured strong loam—almost clay, without any addition of chalk. Its seeds should be sown in the spring, and if the open ground be chosen for this purpose, it should be on a light soil; but it is far preferable to sow them in a pot, and submit them to the stimulus of a temperate hotbed. When the young plants are an inch or two high, they should be removed to a nursery bed, to remain till spring, when they should be removed to the borders for flowering.

LILIUM MARTAGON.

Variety: album.

WHITE MARTAGON.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Germany.	2 feet.	June, July.	Perennial.	in 1596.

No. 426.

The Greeks are supposed to have derived their LEIRION, a Lily, from LEIOS, handsome. Respecting the word Martagon, we know nothing that is satisfactory. It was imported with some of the Martagon Lilies, in the sixteenth century, and may have been a provincialism, although it has been said to have been a name of Matthiolum.

The Dutch, who excel in the growth of all sorts of bulbs, have not been idle in regard to the *Lilium martagon*. They have raised seedling varieties, of various shades of colour, some single and some double, but still none possessing any peculiar attractions, which may account for very few being met with in English gardens. A good, and well arranged, collection of hardy Lilies is very desirable. They occupy little space, and occasion little trouble; and to mention their beauty were quite superfluous.

The white variety of Martagon is of somewhat more delicate habit than the common; and altogether of smaller growth. When grown in peat we have observed that it produced numerous small offsets, but its flowering stems were usually weak. It succeeds best in a sandy loam.

Hort. Kew. 2, v. 2, 242.

TROPÆOLUM MAJUS.

Variety: sanguineum.

GREATER NASTURTIIUM.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
TROPÆOLEÆ.

Native of Peru.	Height. 6 feet.	Flowers in June, Oct.	Duration. Annual.	Cultivated in 1686.
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No. 427.

The origin of the generic name, *Tropæolum*, is found in the Greek ΤΡΟΠΑΙΟΝ; whence comes the Latin *Tropæum*, and its diminutive, *Tropæolum*, signifying a war-like trophy. This fanciful but elegant name, says Sir J. E. Smith, was chosen by Linneus, for the present singular and striking genus, because he conceived the shield-like leaves, and the brilliant flowers, shaped like golden helmets, pierced through and through, and stained with blood, might very well justify such an allusion.

This new variety of an old and favourite plant, has been much sought for, and considered by many as surpassing in attraction our long admired blazing *Nasturtium*, which year after year has been encouraged to climb over garden pales, or ramble unmolested, where shrubs or trees spread out a canopy over its vegetable flames. We cannot, however, predict for the present novelty, a lasting preference. We obtained a young plant of this variety a few months ago. Its early flowers were exceedingly rich in colour; possessing a depth of tint, on their first opening, that is rarely excelled. But each day deteriorated its beauty; and moreover, as the plant

grew older, its flowers opened with less intensity of colour, till they became a muddy and an imperfect imitation of their former beauty. It has been said that this plant is less luxuriant in growth than its congener, the yellow variety, but we observe no difference in this respect. Our plant is strong and rambling, eight feet across.

Had Linneus's daughter never seen but this new variety, we think, she had never interested the world, by making known her discovery of flashing light or electric sparks, issuing from the flowers of *Tropæolus majus*, at evening twilight, and a little before sun-rise. This has been mentioned over and over again, and some persons have thought it really to be the case, whilst others have considered it an optical illusion, produced by the brilliant colour of the flowers. Dr. Darwin notices this phenomenon.

“Ere the bright star which leads the morning sky,
Hangs o'er the East his blushing eye,
The chaste Tropæo leaves her secret bed,
A saint-like glory trembles round her head;
O'er her fair form the electric lustre plays,
And cold she moves amid the lambent blaze.”

As Linneus himself saw these scintillations, it is not to be disputed but some peculiar effect is occasionally produced; but we have not been so fortunate as to witness it.

The single *Nasturtium*, though perennial in Peru, is propagated here in spring as an annual, and as such it is quite successful. Early flowers may be raised by autumn sowing, with winter protection. The single as well as the double variety may be perpetuated by cuttings, assisted by a greenhouse.

Hort. Kew. 2, v. 2, 339.

ERYNGIUM ALPINUM.

ALPINE ERYNGO.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
UMBELLIFERÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Switzerland	2 feet.	July, Aug.	Perennial.	in 1597.

No. 428.

The Greek name, ERRIGION, of Dioscorides, whence ours has been deduced, is of too uncertain an origin for speculation at the present day.

The native country of this plant at once indicates, in a considerable degree, the propriety of its specific name. Switzerland yields us many alpine beauties. Indeed, with its mountains, its vallies, and its southern climate, it possesses such botanical advantages, that it has been considered an epitome of all Europe. It is truly said that no country exhibits so diversified an appearance as Switzerland. The vast chain of Alps, with enormous precipices, extensive regions of perpetual snow, and glaciers that resemble seas of ice, are contrasted by the vineyard, and cultivated field, the richly wooded brow, and the verdant and tranquil vale, with its happy cottages and crystal streams.

The Eryngium alpinum, with its fine feathery involucre beautifully tinted with blue, long continuance in perfection, and general singularity of effect, is worthy of a place in every respectable garden.

It may be propagated by division of the roots, or by short cuttings of them; and also by seeds.

Hort. Kew. 2, v. 2, 117.



Madia elegans.

2/3



Penstemon Richardsonii.

2/3



Centaurea croceolima.

4/2



Delphinium consolida

4/2

MADIA EL'EGANS.

ELEGANT MADIA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of America.	Height. 2 feet.	Flowers in July, Sept.	Duration. Annual.	Introduced in 1831.
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No. 429.

The generic name, *Madia*, is from the word *Madi*; a term employed by the Chilians, to distinguish one of the species of this genus.

This newly-introduced annual, though not of exceedingly splendid character, attracted considerable attention during the past summer. Its flowers are really pleasing; but its petals, when fully exposed to the sun, curl and twist, exhibiting a half withered appearance; however, when evening arrives, its cooling influence exhilarates the *Madia elegans*, and the next morning we meet it in freshness and beauty. Its mode of inflorescence should not pass unnoticed. Its first blossom is produced at the summit of its leading stem; others open in succession downwards. Its lateral shoots, in like manner, are not first produced on the oldest part of the stem, near the bottom, but at the top of the leader; these, too, flower in like manner. Secondary laterals exhibit the same peculiarity.

It requires only the usual treatment of annuals. We would suggest the propriety of giving it a shady situation, that its flowers may the more regularly continue expanded.

PENTSTE'MON RICHARDSO'NII.

RICHARDSON'S PENTSTEMON.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of Colombia.	Height. 18 inches.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1825.
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No. 430.

Pentstemon is a term which we have previously had occasion to notice. Richardsonii, from the name of an English botanist.

We are glad to introduce any additional species of this genus to our friends, convinced, as we are, that they will meet them with pleasure. Of about thirty species of Pentstemon, now cultivated in England, one half have been introduced since we commenced the Botanic Garden; so that, as regards this genus, more remains to be done than at the outset.

The Pentstemon Richardsonii is a more durable plant than some of its congeners. Of the roseum, No. 316, and atropurpureum, No. 275, we have raised numerous seedlings; but many of them, excepting by cuttings, did not continue more than three years. Perhaps it is not greatly to be regretted, that these attentions are required at the hand of the cultivator. Propagation for our own borders, and also for distribution to friends, constitutes one amongst the many enjoyments of a garden.

The Pentstemon Richardsonii does not admit of division at the root. It should be increased by cuttings, about Midsummer, which readily strike root.

Bot. Reg. 1121.

CENTAURE'A CROCODYLIUM.

BLUSH CENTAURY.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of Levant.	Height. 18 inches.	Flowers in July, Aug.	Duration. Annual.	Introduced in 1777.
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No. 431.

The Greek KENTAUIROS, signifying a centaur, is the admitted origin of our word Centaurea. Crocodylium is said to have been applied to this plant from some fancied resemblance of the spines of its calyx to the claws of a crocodile.

The genus Centaurea is very extensive, containing upwards of a hundred and fifty species of hardy plants, from all quarters of the globe. They seem to have been turned to very little account, either in medicine, the arts, agriculture, or domestic economy;—with one exception, noticed in Sir J. E. Smith's English Flora. The expressed juice of the corolla of the Centaurea cyanus, or Corn Blue-bottle, a common weed of our fields, mixed with cold alum water, affords a good blue colour for drawing. This, however, is not singular, for we have used the blue petals of several plants with success, and recommend the experiment to the curious among our readers.

The Centaurea crocodylium, as an annual plant, affords a pleasing variety in the borders, continues long to produce its delicate pink flowers, and does not become straggling and obtrusive. It requires only usual treatment.

Hort. Kew. 2, v. 5, 161.

DELPHINIUM CONSOLIDA.

BRANCHING LARKSPUR.

Class.
POLYANDRIA.

Order.
TRIGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of England.	Height. 2½ feet.	Flowers in June, Aug.	Duration. Annual.	Native of Sandy Flds.
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No. 432.

The name, Delphinium, is deduced from the old Greek authors, who employed their name in allusion to the similarity of shape in the dolphin, and the flower to which they applied the appellation. Consolida is a term continued as a specific name of this plant, from its having been used as a generic one by some of the early European herbalists. The name is from the Latin consolidare, and intended to mark the virtue of the plant, in soldering, or closing up a wound.

In our last page, we mentioned the production of a blue colour, from the petals of *Centaurea cyanus*. The flowers of this *Delphinium* also yield a fine blue tint; which, with a little alum, may be used with good effect for water-colour drawings.

This annual Larkspur, or Larksheds, as Gerard has it, should be seen in every garden. Its flowers are very ornamental; and as there is a pink variety as well as blue, they may be mingled together with good effect, especially on entire beds. Its foliage being of so light and airy a character, renders the branching of the plant not objectionable, even in the mingled parterre.

It is particularly hardy, for when once obtained, it may easily be kept. Its seeds vegetate, after falling from the plant, and excite, through the winter, an interest for their welfare. Many circumstances give winter a charm. Even the anticipation of spring is a charm, which we owe to the existence of winter. Hear, too, what Clare says—

“Come, bleak November, in thy wildness come;
Thy mornings clothed in rime, thy evenings chill;
E'en these have power to tempt me from my home,
E'en these have beauty to delight me still.
Though Nature lingers in her mourning weeds,
And wails the dying year in gusty blast,
Still added beauty to the last proceeds,
And wildness triumphs when her bloom is past.

Though long grass all the day is drenched in dew,
And splashy pathways lead me o'er the greens;
Though naked fields hang lonely on the view,
Long lost to harvest and its busy scenes;
Yet in the distance shines the painted bough,
Leaves changed to ev'ry colour ere they die,
And through the valley rivers widen now,
Once little brooks which summer dribbled dry.

Those yellow leaves that litter on the grass,
'Mong dry brown stalks that lately blossomed there,
Instil a mournful pleasure as they pass:
For melancholy has its joy to spare,—
A joy that dwells in Autumn's lonely walks,
And whispers, like a vision, what shall be,
How flowers shall blossom on those withered stalks,
And green leaves clothe each nearly naked tree.”

As this Larkspur bears the winter so well, it should be sown in autumn.

Hort. Kew. 2, v. 3, 318.



Oxalis crenata.



Erica cinerea.



Alstroemeria pelegriana.



Aconitum versicolor.

OX'ALIS CRENA'TA.

NOTCHED-PETALLED WOOD-SORREL.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
OXALIDÆÆ.

Native of Lima.	Height. 3 feet.	Flowers in July, Sep.	Duration. Perennial.	Introduced in 1829.
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No. 433.

Oxalis is a name deduced from the Greek *oxys*, signifying sour. *Crenata*, from the Latin, notched, in allusion to its flowers.

The *Oxalis crenata* is a far more robust plant than any other of the genus; but notwithstanding this, its stems are tender, succulent, and admirably suited to the purpose of yielding a grateful acidity to salads, as well as forming a delicious tart, which probably, no one but ourselves, has tried.

It is not on account of the flowers or herbage of the *Oxalis crenata* that it becomes an object of peculiar interest, but from its tuberous roots. These bear a great resemblance to the potatoe. Their form and their colour is precisely similar to it; and they may also be divided into cuttings or sets, for propagation, as is the usual practice with our every-day vegetable. The most important consideration, however, is their value as food. We have boiled them, and find them to be quite as agreeable as the potatoe; so similar, that they may be eaten without the difference being observed. When roasted, they indicate a deficiency of farinaceous substance; therefore, to give the comparison of nutritive matter con-

tained in the potatoe and oxalis, some decided shape, we have separated the starch and gluten from a like weight of each. We find that one avoirdupoise ounce of the *Oxalis* produces 42 grains; whilst an ounce of potatoe, similarly treated, produces 106 grains; hence a great advantage appears in favour of the potatoe. An allowance ought, however, to be made for the *Oxalis* having been fresh taken from the earth, which was not the case with the potatoe. Future and more perfect culture may also give to it an increase of solid matter, by the attainment of more perfect maturity. Time would not permit our separation of the pure starch by fermentation, but we intend hereafter to pursue the analysis. These tubers, when boiled, may be dried into a yellowish brown tenacious substance, fit for keeping any length of time. On boiling again, they soften into a somewhat farinaceous palatable mass.

In regard to the culture of this newly-introduced vegetable, very little knowledge has yet been acquired. Last spring we submitted tubers of it to several different modes of treatment, but although our increase has been considerable,—more than a hundred and fifty fold; still, on examination of what we now see to be the capabilities of this prolific plant, our culture we believe to be comparatively a failure. But we have made some progress towards a knowledge of its habits, so as to inform our readers what peculiarity of management is most likely to afford success. As our space will not admit all that we wish to state respecting the *Oxalis crenata*, we shall give the result of our culture in the annexed Auctarium.

ERI'CA CINE'REA.

GREY HEATH.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICÆE.

Native of Britain.	Height. 1 foot.	Flowers in July, Sep.	Duration. Perennial.	Inhabits Commons.
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No. 434.

Whether this term originated from the Greek word EREICO, which has been previously noticed, on account of medicinal properties, or its fragility, is difficult to determine. Cinerea, from the Latin, signifying ash-coloured. Some of its branches and leaves, have a very fine grey woolliness, but it is rather a microscopic object.

This hardy British Heath is highly ornamental in the garden; and from the difference of colour in the flowers of its several varieties, the curious florist may form, even from this single species, an interesting collection. Deep crimson, pure white, and intermediate tints occur of the *Erica cinerea*.

Notwithstanding the beauty of our indigenous heaths, they are seldom cultivated with care and success in the garden. Being somewhat impatient of surface culture, they cannot advantageously be promiscuously planted in the parterre, but should have a province of their own, in a pure atmosphere, and sandy peat; where they may live in quietude, unknown to the spade and the hoe. If their branches be pegged down, they will grow more freely, and soon admit of division.

Hort. Kew. 2, v. 2, 392.

ALSTRÆMERIA PELEGRINA.

SPOTTED ALSTRÆMERIA.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDÆ.

Native of Peru.	Height. 1 foot.	Flowers in June, Sep.	Duration. Perennial.	Introduced in 1753.
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No. 435.

The title of the present genus was adopted by Linneus, in honour of his friend, Baron Alstrœmer, who sent him seeds from Spain, of the very species now before us. It is stated of the great naturalist, that in his anxiety for the winter preservation of the seedling plants of this newly-acquired transatlantic beauty, he made them nurslings of his own bedchamber. Pelegrina is its common name in Peru, which signifies a superb flower.

The *Alstrœmeria pelegrina* is beautiful. It has usually been treated as a greenhouse plant, and it certainly deserves any care that can be advantageously bestowed on it. It is, however, half-hardy, requiring only the cold frame.

If it be treated as a border plant, the situation should be warm and dry, and the soil made very light, by a free admixture of leaf mould, sand, and the sifted mortar rubbish of an old building. A glazed frame, similar to a cucumber frame, forms a neat winter protection; beneath which, other half-hardy plants may also have a place. Under pot culture it does not increase, and ripen seeds, so freely as when planted out with due care.

Hort. Kew. 2. v. 2. 303.

ACONITUM VERSICOLOR.

SHADED MONKS-HOOD.

Class.
POLYANDRIA.

Order.
TRIGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of Europe.	Height. 3 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1820.
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No. 436.

The derivation of Aconitum cannot now be traced with certainty; ingenious etymologists have, consequently, multiplied the doubts by invention. Some think that the Greek word ACON, signifying a dart, formed the root from which it was deduced, because its poison was used upon darts, to render them the more deadly. The name certainly was employed by the Greeks to distinguish a plant to which they attributed extraordinary virulence. See Aconitum napellus, No. 210.

All the species of Aconitum should be regarded with suspicion, as highly poisonous, which some are well known to be, from respectably authenticated instances of death succeeding the use of them. Some persons discard all species of it from the garden. This would, to most florists, appear rather fastidious, inasmuch as the English are not so passionately attached to vegetable diet, as to eat garden herbage indiscriminately.

This species is of upright neat growth, and its flowers are ornamental; particularly so when the root has become strong, and produces several stems. It may be increased by division.

Loddig. Bot. Cab. 794.





Lavatera triloba

72



Lupinus ornatus.

73



Pyrethrum uliginosum.

74



Linaria triornithophora.

75

LAVATE'RA TRI'LOBA.

THREE-LOBED LAVATERA.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of Spain.	Height. 4 feet.	Flowers in July, Aug.	Duration. Perennial.	Cultivated in 1759.
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No. 437.

Tournefort, the celebrated French botanist, adopted the name of this genus in honour of Doctor Lavater, of Zurich, of whom but little is known. Although his public character may have possessed no claim to such distinction, his private worth, it may be presumed, fully justified Tournefort's adoption of his name to assist a science fraught with so much of quiet delight. If we would be reminded of pious worth, subtle reasoning, and originality of idea, we must turn a thought upon the Lavater of the succeeding generation,—upon him who said “The powers and faculties of the mind have representative signs in the solid parts of the countenance.”

Lavater's science of Physiognomy engrossed the attention of his own country, and also of ours, for several years; and although it is now somewhat neglected, we would strongly impress on the minds of our young readers, that it is not neglected because wholly founded in error. It is an admitted truth, that not only the powers of the mind, but also the virtuous or wicked employment of those powers, will oftentimes be portrayed on the countenance. Admitting this, surely the very worldling ought to avoid

evil-doings, lest the habitual workings of his mind be seen in the lineaments of his face, as a beacon to warn society from his influence.

If, when this handsome shrubby plant,—the *Lavatera triloba*, meets the eye of any of our readers, it excites one commendable sentiment, our aim is answered. True, it certainly is, that the tenants of the flower garden are not the mere eye objects, that here and there, a single earth-bound mortal may be found to pronounce them. Whether they carry the name of the Divine, whose piety we are called on to imitate;—of the Philosopher, whose researches are laid open to us;—or of Kings, Countries, or less noble objects, their names alone, independently of their connexion with the works of wisdom in the creation, may frequently awaken a course of reflections, having a tendency to delight and improve the mind.

The *Lavatera triloba* has, long, been cultivated in the greenhouse, and also as a frame plant. In some situations, however, it neither requires the protection of the one or the other. It should be known as a plant that will grow in smoky districts, having been observed to flourish in the neighbourhood of coal mines on the southern side of the county of Stafford; and there to bear full exposure through winter. We have not observed it produce seeds, although, under favourable circumstances, it probably may do so. It is usually increased by cuttings. When the young shoots are two or three inches long, they should be carefully cut off, close to the old wood; then planted in pots of very sandy compost, covered with bell glasses, and placed either in a greenhouse or hotbed.

LUPINUS ORNATUS.

ADORNED LUPINE.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of Columbia.	Height. 2 feet.	Flowers in June, Oct.	Duration. Perennial.	Introduced in 1827.
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No. 438.

The word, *Lupinus*, has already been explained. *Ornatus*, signifying ornamented, may, correctly enough, be applied to most plants, if it be intended to intimate that the flower is an ornament to the herb. We know of no peculiar appendage to which the appellation alludes.

Mr. Douglas, who sent seeds of this very beautiful species of *Lupine* to the London Horticultural Society, found it abundantly in the vicinity of the river Columbia, in gravelly, or light dry soils. He considered it one of the finest plants of the whole genus, an encomium which, from him to whom England owes almost half the *Lupines* it possesses, is some distinction. Its azure flowers, and silvery leaves, give it a delicacy which must be admired; still, truth must admit that the fine racemes of flowers produced by the *polyphyllus* and some others, excel the present in beauty of character.

The *Lupinus ornatus* does not increase much at the root, but its seeds supply the deficiency. These should be planted, in April, in a light sandy soil, in the open ground, in preference to the hotbed, in which they not unfrequently damp off.

Bot. Reg. 1216.

PYRE'THRUM ULIGINO'SUM.

MARSH FEVERFEW.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Hungary.	Height. 3 feet.	Flowers in July, Sept.	Duration. Perennial.	Introduced in 1816.
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No. 439.

The Greek PYRETHRON of Dioscorides has been ascertained to be the Pellitory of Spain, or anthemis pyrethrum of Linneus. The word PYR, fire, is considered the father of this name, which designates the pungent or fiery taste of the root. The ancient name becoming unoccupied as a generic term, modern botanists have adopted it for the present genus, on account of the resemblance of the respective plants. Uliginosum, from the Latin, is used in allusion to the native situation of the Pyrethrum uliginosum being generally wet or moist.

At first sight, it may be inferred that our present plant is a subject of but little interest, for the flower garden, from its likeness to some of our natives. This, however, would be an incorrect inference; for, independently of its showy white ray, which assorts well with the abounding yellow and deeper tints of autumn, its boldness of growth and general character, make it an object of attraction, even at a distance, amongst the most splendid autumnal beauties.

It spreads freely, by under-ground shoots, but not inconveniently so; and may be divided for increase. Soil or situation not important.

Loudon's Ency. of Pl. 722.

LINARIA TRIORNITHOPHORA.

THREE-BIRDS-BEARING TOAD-FLAX.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of Portugal,	Height. 2 feet.	Flowers in July, Sept.	Duration. Perennial.	Introduced in 1710.
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No. 440.

The generic term, *Linaria*, is deduced from *Linum*, just as *Toad-flax* is from *Flax*. The Greek compound, which forms the specific name of our plant, shows, in an eminent degree, the facility of combination amongst the words of this language. It is deduced from *TREIS*, three; *ORNITHOS*, of a bird; and *PHORA*, carrying or bearing; hence *trior-nithophora*. An inspection of the plate will at once explain the application of this rather prolix title. The flowers are produced in threes, and have somewhat the appearance of three birds sitting together.

We are sure that our friends will be much gratified by an acquaintance with this beautiful plant. Although not of late introduction to this country, it is very rarely met with. We first saw it in the Birmingham Botanical Society's rich collection, bearing an abundance of its singular flowers.

Its mode of increase should be particularly regarded. In the latter part of summer, from its fibrous roots, a foot or more from the parent, spring up small young plants. These should be transplanted, or potted, to have protection in very severe weather; and, in April, be turned into the borders.

Hort. Kew. 2, v. 4, 12.







Hedysarum obscurum.

25



Sanguisorba Canadensis.

26



Jasione perennis.

27



Lilium pomponium.

28

HEDYS'ARUM OBSCU'RUM.

CREEPING HEDYSARUM.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Europe.	6 inches.	July, Aug.	Perennial.	in 1640.

No. 441.

Hedysarum is a name adopted from the ancient Greeks, and is now used to designate plants which have but little connexion with the idea the word was intended to indicate. It originated from the Greek HEDYS, sweet, and AROMA, a perfume. From the description of Dioscorides, it is thought that the plant which originally bore the name, was a species of Fenugreek. In consequence of an obscurity, or confusion occurring in the descriptions of this plant, as given by different authors, in the time of Linneus, he called it obscurum. It is a matter of wonder, to every one conversant with natural history, that he should not have had more frequent occasion to register doubts and uncertainties, for he was a second Adam, to whom all things were brought to be named.

The Hedysarum obscurum is a beautiful little plant for the borders, mounds, or artificial rock-work. It should be placed where it can be of easy approach and inspection, that its beauty may not be hidden by more diffuse subjects. It will be well suited to accompany the Orobus vernus, Orobus tetragonolobus, Coronella Iberica, and the minor

species of *Astragalus*. There is an evident pleasure arising from these combinations, provided such assorting be not too extensively indulged. Plants of the same class harmonize in little coteries, as well as human beings. When congenial spirits meet, and promote reciprocal enjoyment, it is very natural that the witnesses of these gratifications should partake in the pleasurable feelings. We well remember the remark of a very amiable lady, on taking us through a beautiful flower garden, to a secluded nook of alpine primulas,—“ There, Sir, partake with me in the pleasure I have in seeing how much these beautiful little creatures flourish, and enjoy the society of each other.” These little assemblages are very pleasing, when made subservient to more general principles of distribution.

Hedysarum was formerly a very extensive genus, comprising upwards of a hundred species, but it is now greatly reduced by distribution into other genera. The *Hedysarum gyrans*, known as the moving plant, must now be sought for as *Desmodium gyrans*. The singular property of this moving plant is known to many persons, although, as it requires the stove, in cultivation, but few can call it their own. Its leaves are produced in threes, and the side ones, which are smallest, have a singular spontaneous motion, chiefly up and down, but without regularity, or the least dependance, as regards their movement, of one leaf on another.

The *Hedysarum obscurum*, of which a white variety is mentioned, will grow freely in any common soil, particularly in a sandy loam, which admits the free course of its creeping roots.

SANGUISOR'BA CANADEN'SIS.

CANADIAN GREAT BURNET.

Class.
TETRANDRIA.

Order.
MONOGYNIA.

Natural Order.
SANGUISORBEÆ.

Native of Canada.	Height. 5 feet.	Flowers in Aug. Sept.	Duration. Perennial.	Cultivated in 1633.
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No. 442.

Sanguisorba is derived from the Latin sanguis, blood; and sorbeo, to absorb, from the astringent qualities of the Sanguisorba officinalis. Gerard says, " It stancheth bleeding, as well inwardly taken, as outwardly applied." And Turner, an age earlier, reported that " The herb, holden alone in the hand, is good for the same."

The Sanguisorba Canadensis cannot claim such virtues, as the plant which first suggested for it a name; it is, however, a far more comely plant. Its fine long spikes of modest flowers may not rivet the admiration of the casual observer, but they will be seen, by the experienced eye, to possess a delicacy, which, with their erect bearing, will obtain for them a place in the foreground of the home shrubbery. Here it will rise up, and form a fine contrast with the bright foliage of wide-spreading evergreens.

Authors mention a red flowering variety of this plant, with thicker spikes than the pale one. Should this, or the white Hedysarum obscurum, be possessed by any of our friends, we hope they will communicate the fact, as we have never been able to meet with either.

Hort. Kew. 2, v. 1, 258.

JASIONE PERENNIS.

PERENNIAL SHEEP'S SCABIOUS.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of France.	Height. 1 foot.	Flowers in June, July.	Duration. Perennial.	Introduced in 1787.
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No. 443.

The Greek word, *JASIONE*, is of uncertain origin, and the identity of the plant to which it was applied, is equally doubtful. It has been said to be derived, in part, from *ION*, a violet, on account of its blue flowers; but we have Pliny's authority for the ancient *Jasione* having had white flowers.

When grown in perfection, the *Jasione perennis* is a neat and attractive flower, but it will not unfrequently be met with in a weakly state; and, moreover, be oftentimes entirely lost, though a few days previously, it had exhibited vigour and increase. In fact, the more luxuriantly it has grown, the more precarious is its existence, without due attention has been paid to its culture.

Here we are reminded of an interesting enquiry now going on, regarding the cause that demands a rotation of crops. Formerly, it was believed that each species of vegetable absorbed a specific ingredient of the earth, and thereby deprived it of the requisite quantity of the peculiar ingredient necessary for the healthy growth of another crop of such species. Late physiologists, however, maintain that the plant discharges, from its roots, after elabora-

tion, a portion of matter not applicable to its own increase, and that such matter is poisonous to a succeeding crop of its own species, but not to others. Hence the necessity of a change of crop. This we shall notice in another place; suffice it here to say, that the *Jasione perennis*, either from exhaustion of the soil, or from its deposition of superfluous recrements, really cannot be successfully grown in the same spot, year after year.

This plant produces, in autumn, an abundance of suckers, all round the parent plant. These emit strong string-like roots, which not only descend directly downwards, but also produce lateral fibres, so as closely to occupy the whole body of soil, immediately round the old plant. All trace of the parent plant will be lost; and these sucker roots, closely matted together, will oftentimes, in spring, if left undisturbed, gradually decay. The more luxuriant the increase, the greater the danger of disease. Thus they proceed, though above ground, with healthy appearance, till perchance, some uncongenial day or night disclose their morbidity, and their withered leaves meet us as the knell of their departed promise. If grown in pots in the same state, frame protection will not avert this failure. Thus proceeds the disease. The remedy is easy. The young plants must be raised, in autumn, and planted singly, or at least, not too closely together; and they will, as Parkinson would say, flourish to the delight of every beholder. The most suitable soil will be peat, or peat and loam. Aspect is of minor importance, so that the situation be tolerably dry.

LILIUM POMPO'NIUM.

POMPONE LILY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
TULIPACEÆ.

Native of Siberia.	Height. 2 feet.	Flowers in May, June.	Duration. Perennial.	Cultivated in 1629.
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No. 444.

The word, *Lilium*, has been adopted from old Latin authors, who had derived it from the Greek *LEIRION*; a name, doubtless, applied to some splendid plant of the East, generally believed to have been a species of *Amaryllis*. *Pomponium*, from the name of a place.

This beautiful flower is not so generally cultivated as it deserves; indeed, we are convinced, that it only arises from many species of *Lily* being unknown, that they are not more generally introduced into almost every garden. Their roots demand no culture; their flowering stems grow up independently of the gardener's care; and their flowers, from purest white, through various shades of attractive hues, claim, proverbially, our admiration.

According to Mr. Loudon, the *Lilium pomponium* has another claim to notice. He says, it is cultivated in Kamtschatka as the potatoe is in Britain, and that its bulbs are in like manner laid up for winter store. They are there called *savannas*, and when boiled, taste exactly like a waxy potatoe.

We need only observe, that the bulbs should not be moved when in an active state of growth.

Hort. Kew. 2, v. 2, 242.



Rosa Indica.



Coronilla Iberica.



Digitalis laciniata



Verbena officinalis

RO'SA IN'DICA.

ROSE CLARE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Hybrid Origin.	Height. 10 feet.	Flowers in July, Oct.	Duration. Perennial.	Cultivated in 1827.
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No. 445.

The Celtic word, RHOS, a Rose, from the word RHODD, of the same language, signifying red, has, with a little variation, been transferred into numerous other languages, to convey a meaning similar to the original. Indica is applied as a specific name, to connect the plant with its native country. This, in the present instance, is but partially correct, for the Rose Clare is, doubtless, a hybrid production, but we have not been able to ascertain whether it originated in this country or in France. Its beauty must be accepted as a compensation for its deficiency of hereditary family honours.

It has been well said, by an eminent botanist, that the Rose is the most favourite of plants, in all countries of the globe; the type of beauty and love, bestowing its name to enrich other flowers; which derive from thence, their chief celebrity; and taking unquestioned precedence in all matters of ornament or taste. But thorns are proverbially the accompaniments of Roses; nor can any one be more sensible of this, than the botanist who attempts to extricate and define the species of this beautiful family. Cultivated plants, in general, are known to

sport in luxuriant varieties; often transient indeed, but sufficiently durable to cause much perplexity to the accurate observer.

The Rose Clare partakes of the habit and character of the China Rose, and there is little doubt but it has been raised from this species; where, or by whom, we cannot with confidence state. Report, however, states that it originated with a gentleman of the name of Clare; and that it was raised from seeds brought from Italy. The great variety of seedling Roses which are annually raised, both here and on the continent, renders it a matter of little interest to nurserymen to know their origin. The qualities which constitute the passport of a plant to public favour must, necessarily, be the most important subject of consideration.

In this particular, the Rose Clare has a distinguished claim. It grows freely, wherever other Roses flourish, and produces an abundance of flowers, from the commencement of its flowering season to the close of autumn.

A method of expeditious propagation, practised by M. Vibert, of St. Dennis, and mentioned by Mr. Loudon in the Gardener's Magazine, may be novel to many of our readers. The species which it is intended to increase is budded on the current year's shoots of the *Rosa reversa*. When the buds begin to push, the stems in which they are inserted, are laid down; and the shoot proceeding from the bud, deriving nourishment, as well from the roots emitted into the soil, as from the stock, grows vigorously, so as to admit of layers being rooted and taken off the same season.

CORONIL/LA IBERICA.

IBERIAN CORONILLA.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of Iberia.	Height. 6 inches.	Flowers in July, Sept.	Duration. Perennial.	Introduced in 1822.
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No. 446.

The word, Coronilla, is derived from the Latin corona, a crown; and the diminutive of the word is implied by its termination. Hence the idea, a little crown; which is, aptly enough, applied to the present golden flowered species of the genus. Iberica, in the present instance, is not intended to apply to any part of Spain; but to a district bordering on Mount Caucasus, to which the plant is referred by Marschall, in his Russian Botany.

The Coronilla Iberica is a delightful plant for the foreground of the parterre, a situation which it claims, as well on account of its attractions, as from its stature. It spreads freely, completely covering the surface of the soil with its neat foliage; from amongst which, rise its brilliant little coronets, in pleasing contrast to the ground-work wrought by its own procumbent branches.

Luxuriant foliage and flowers will be yielded by a rich fresh loamy soil; but in a light and impoverished one, although it may live and increase, they will be comparatively few and diminutive. It should be planted in an open situation, uninfluenced by the shade of trees.

Ency. of Pl. 628.

DIGITALIS LACINIATA.

CUT-LEAVED FOX GLOVE.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Spain.	18 inches.	July, Aug.	Perennial.	in 1827.

No. 447.

Digitalis, from the Latin *digitale*, the finger of a glove. *Laciniata*, also from the Latin, adopted in allusion to the jagged edges of the leaves of this species.

The *Digitalis laciniata* is yet but little known to English botanists; and although it has borne the two or three last winters without injury, we do not anticipate that it will become a plant of so hardy a character as to stand, unprotected, in severe seasons. Its general habit and appearance is more delicate than most others of the same genus.

In dry summers it produces seeds, from which it can be abundantly increased; so that young plants may be kept in reserve, under protection, to meet emergencies, should the plants, in full exposure, sink under the influence of an unfavourable winter. It may also be propagated by cuttings. These should be struck under glass, on a little artificial heat; and afterwards potted, and kept in the cold frame till the following spring. Occasionally, the roots will admit of being divided, but not to much extent. Loamy soil should be preferred to that which is peaty; and a warm situation.

Bot. Reg. 1201.



Cistus acutifolius.

79



Trachymene caerulea.

80



Paeonia edulis.

81



Cytisus argenteus.

82

CISTUS ACUTIFOLIUS.

ACUTE-LEAVED ROCK-ROSE.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
CISTINEÆ.

Native of S. Europe.	Height. 18 inches.	Flowers in May, Sept.	Duration. Perennial.	Cultivated in 1820.
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No. 449.

The ancient Greeks had their plant, KISTOS; which name, it is believed, they derived from their own word, KISE, a box; in allusion to the seed vessel of the plant. Hence comes the Latin cista, and the English chest, and almost obsolete Kyste.

Nearly all the species of Cistus are indigenous to the southern provinces of Europe; they are, consequently, somewhat more susceptible of injury, from severe frost, than could be wished; otherwise the abundance and the beauty of their flowers would be a passport for them into every garden.

The common Gum Cistus is not unfrequently destroyed in exposed situations. The present species, however, we have never seen injured by the severity of our climate. It is a spreading dwarf shrub, not exceeding two feet high, although its slender branches, unpruned, will extend three feet wide. The entire plant bears a free succession of flowers through the whole of summer; and it may, very appropriately, ornament the mingled herbaceous department, as well as the foreground of the shrubbery. It may be increased, without difficulty, from layers, cuttings of the young shoots, or by seeds.

TRACHYME'NE CÆRU'LEA.

BLUE-FLOWERED TRACHYMENE.

Class.
PENTANDRIA.

Order.
DIGYNIA.

Natural Order.
UMBELLIFERÆ.

Native of N. Holland.	Height. 18 inches.	Flowers in July, Sept.	Duration. Annual.	Introduced in 1827.
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No. 450.

The genus *Trachymene* is named from the Greek *TRACHYS*, rough; and *MENE*, a membrane, in allusion to the rough membranaceous coat of the seeds. *Cærulca*, from the Latin, blue.

This plant was at first considered, by botanists, as distinct from *Trachymene*, and a new genus was established by De Candolle to receive it. Subsequent examinations induced a different opinion.

It may not, on casual inspection of this new and interesting annual, be observed that it belongs to the umbelliferous order of plants; in which blue flowers so rarely occur. White and inconspicuous tints generally prevail, as may be observed by many of our native umbelliferous flowers, which are so prevalent in and about the hedges of England. These ask examination. Their little white or blush blossoms, sent out on distinct spokes, emanating from one point, in regular rays, like those of a parasol, have a peculiar beauty of arrangement.

The *Trachymene cærulea*, should be sown early, on a hotbed, that it may shew itself in perfection in autumn. Its late flowering will generally prevent seeds being ripened, unless under protection.

Bot. Mag. 2875.

really grow and flourish independently of the care, it may be said in defiance of the neglect, of the cultivator; a recommendation not often due to showy plants which are principally met with in nurseries, and the gardens of professed florists. In a few instances, we have seen the *Pæonia moutan*, or tree Pæony, as it is usually called, planted on a lawn, and when in full flower, a more imposing object is rarely witnessed. A display, on one plant, of from fifty to two hundred of the most magnificent blossoms that the gardens of Great Britain can boast, may be admitted to become a source of pleasure. The Tree Pæony has the advantage of progressive growth, from year to year, which ultimately produces a height and circumference which all other species, from the annual destruction of their herbaceous stems, can never attain. Excepting in size, the flowers of several of the herbaceous Pæonies stand forth its successful rivals.

We wish, particularly, to excite the attention of our readers to this genus of plants, from a conviction that, to many, who almost despise the old officinal Pæony, a slight acquaintance with a few of the more esteemed sorts, would open the way to augmented gratification.

All Pæonies may be increased by dividing their roots, in autumn; but if divided into small portions, they require two or three years before they will flower in perfection. Many also produce seeds, even some of the double varieties, if their stigmas be fertilized by the application of pollen from a single flower. Their seeds should be sown in the open ground, as soon as ripe.

CYTISUS ARGENTEUS.

SILVER-LEAVED CYTISUS.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of France.	Height. 3 feet.	Flowers in July.	Duration. Perennial.	Introduced in 1739.
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No. 452.

Cytisus is derived from Cythnus, an island now called Therminia, where, according to Pliny, it was indigenous. Argenteus, from the Latin argenteum, silver; which alludes to the silvery effect produced on the plant by a close white hairiness.

The Cytisus argenteus, in its natural state, is a low spreading, and rather inconvenient shrub for display; but like some others of the same genus, when assisted by art, becomes a conspicuous ornament of the garden. Its slender decumbent branches, clothed, as the poet would say, with golden flowers and silver leaves, when lifted from their lowly birth-place, to the eminence their beauty deserves, are peculiarly attractive. Grafted on single stems of the Laburnum, from four to six feet high, standards are formed with gracefully drooping branches. These, interspersed with standard roses, judiciously disposed over the garden or pleasure grounds, give character, and a picturesque appearance, not attainable by the use of naturally grown shrubs.

This species of Cytisus, as well as the Cytisus laburnum, for standard stocks, may be raised from spring-sown seeds.

Hort. Kew. 2, v. 4, 322.



Erigeron asteroides.

76



Cineraria maritima

77



Galega Persica.

78



Iris Ruthemica.

79

ERIGERON ASTEROIDES.

ASTER-LIKE ERIGERON.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Uncertain.	15 inches.	July, Aug.	Perennial.	in 1812.

No. 453.

The generic name, *Erigeron*, has passed from the ancient Greeks, through many oblivious centuries to the present day. It is compounded of *ER*, signifying spring, or early; and *GERON*, an old man. Hence the compound term has allusion to its bearing the appearance of hoary-headed age, in spring, or in early growth, as some species expand only a head of hoary seed down, similar to *senecio*.

The *Erigeron asteroides* is, perhaps, the most desirable hardy plant of the genus, and is very little known. It has not, unfrequently, been made an inhabitant of the greenhouse, although, in dry situations, it bears, uninjured, full exposure to the severity of our winters.

It flowers abundantly from August to October, and when neatly supported by small iron stakes, such as are described in the eighth section of the *Auctarium*, is very ornamental. It will grow in any rich garden soil, and may be increased by division of its roots in spring. It may also, be increased by cuttings in the summer. These should be planted in a very sandy compost, under glass, and have occasional shade till they have emitted roots.

CINERA'RIA MARIT'IMA.

SEA RAGWORT.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	2½ feet.	July, Sept.	Perennial.	in 1633.

No. 454.

The word, *Cineraria*, is derived from the Latin *cineres*, ashes; to indicate the ash-like colour of the leaves and stems of the plants of this genus; a peculiarity arising from their downy or tomentous surface. *Maritima*, from the Latin *mare*, the sea; a specific name chosen to indicate its native situation—the sea coast.

To the same circumstance which it owes its systematic name, *Cineraria*, it is also indebted for the less classical, but equally expressive, one of *Powdered Beaux*. Its almost white stems and foliage, are very conspicuous in the open garden; and claim some recommendation, for it really becomes a showy plant, independently of its flowers.

The *Cineraria maritima* is rarely submitted to full exposure, which, it must be allowed, is an oversight, inasmuch as its appearance is unique, and its habit sufficiently hardy to bear most of our winters. It should be planted in a dry and rather poor soil, in a warm situation. And as cuttings readily root, under a hand-glass, a few plants may be propagated annually, to receive the shelter of a sitting-room or shed, in very severe weather.

Hort. Kew. 2, v. 5, 75.

GALE'GA PER'SICA.

PERSIAN GOAT'S-RUE.

Class.
MONODELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of Persia.	Height. 4 feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1816.
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No. 455.

The word, Galega, is believed to have been derived from the Greek GALA, milk; to mark the plant as producing it in animals which feed on its herbage.

The Galega Persica bears a strong resemblance to the Galega officinalis, but it is far less common, and of comparatively recent introduction. It is also rather more robust in habit, and of taller growth. It is an abundant flowerer, producing one of its white racemes at the axil of each leaf.

The natural order, leguminosæ, to which this genus belongs, is a most important one in the sustenance of animal life. The pea, bean, vetch, trefoil, and numerous other plants belonging to it, are universally known. Nearly the whole may be recognised at first sight, from their papilionaceous or butterfly-like flowers. These have a peculiar arrangement of their petals, admirably adapted for the protection of their parts of fructification, from injury by summer showers.

Whether our attention be arrested by the mineral or vegetable world, enough in the economy of either will continually manifest itself to form a useful lesson to man. The solicitude of the most insignifi-

eant animal, in the protection of its offspring, and the manifold devices by which vegetable fructification is preserved from the opposing operations of the elements, must, each in their turn, offer matter of admiration. How much to be lamented is it, that these perpetual indications of divine wisdom so rarely arouse human apathy. The force of these considerations is peculiarly pressed on our notice, at the present moment, by the following incident.

At a friend's house, we have just witnessed the parental attentions of a chaffinch, which has built its nest beneath the shelter of a rose tree, on the sill of the dining-room window. The bird, now sitting, evinces no alarm from persons within the room. In this situation her every action is open to scrutiny; and we can conceive the pleasure many of our readers would have in watching her apparent wisdom and purpose in the protection of her eggs and nest. In the lowest grade of life—in the vegetable kingdom, irritability, influenced by a direct stimulus, effects the required protection. Expansion and contraction of vegetable appendages are the principal operations. To the superior grade of creation—to man, is given reason, the faculty of the soul, to guide his purposes of self-preservation. To the intermediate class—to inferior animals, instinct is given, as in the brooding chaffinch which we have mentioned. When her little castle is assailed by rude storms, she ruffles her feathers, sits high, spreads partially her imbricate wings, and forms an architectural roof of plumage, that bids defiance to the watery element. Who can define the limits of reason and instinct!

IRIS RUTHENICA.

RUSSIAN IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEE.

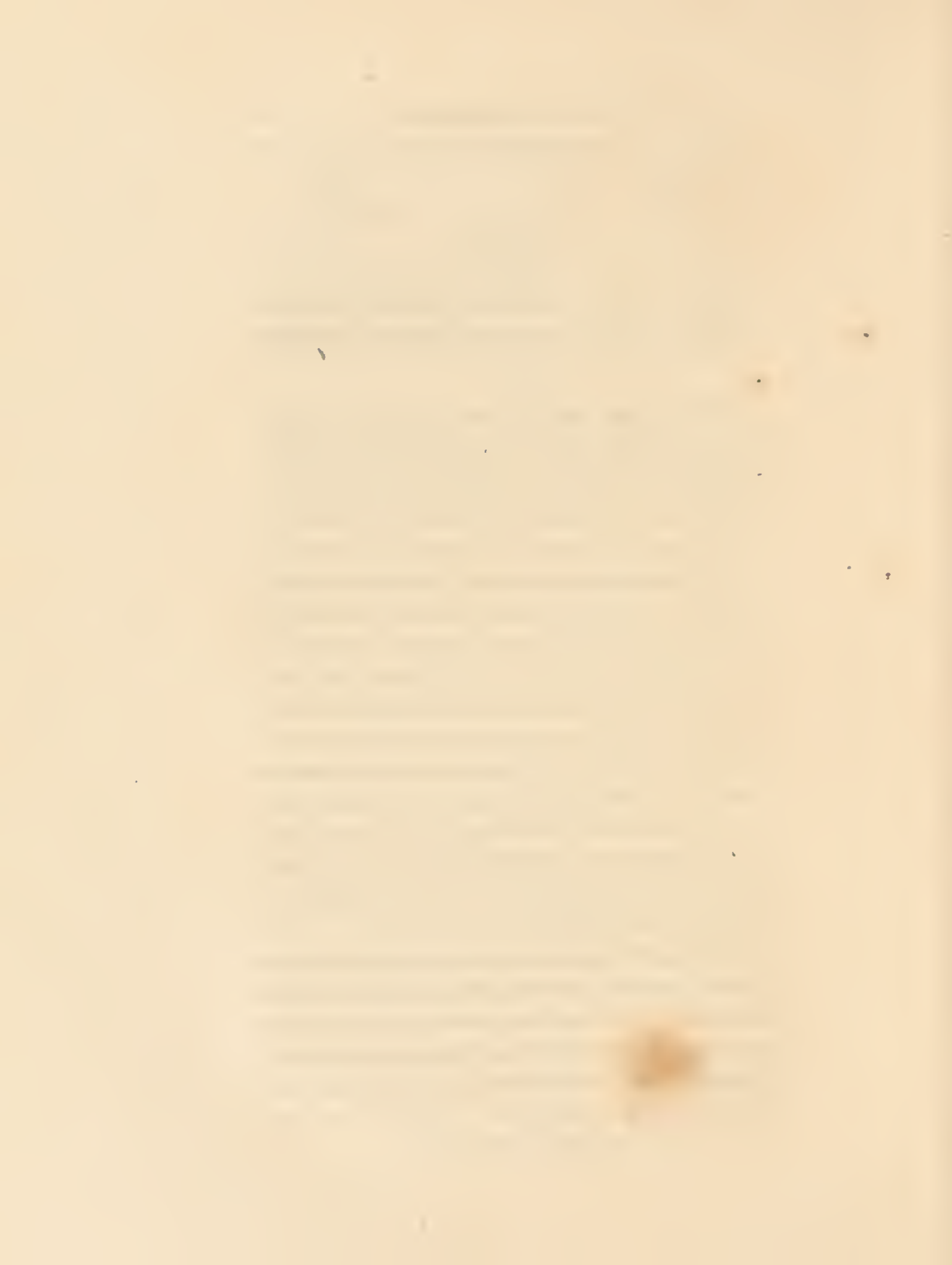
Native of Russia.	Height. 1 foot.	Flowers in Aug. Sept.	Duration. Perennial.	Introduced in 1804.
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No. 456.

The rainbow's varied colouring has been thought to be assumed by some of the present genus; hence the application of Iris, the Greek name of the "heavenly bow." Ruthenia, belonging to Russia.

Although we scarcely ever entered a flower garden without meeting a few old friends of the Iris family, yet a tolerably complete assemblage of them is very rare. The genus comprises upwards of eighty species—all beautiful, unobtrusive, and with two or three exceptions, quite hardy. The Iris Ruthenia is by no means common, and is rendered the more desirable by the lateness of its season of beauty. In the general catalogues it will be found to be registered as flowering in April and May, but our plant is an autumnal flowerer. It is dwarf, and is likewise pleasantly scented, a quality not prevalent amongst Irises.

This plant has a tendency to form an obtuse angle either above or below the germen; and sometimes at both of these situations, as will be observed by our figure. It is not, however, a permanent character. The plant may be divided in spring or autumn, and flourishes in peat and loam.





Rosa rapa.



Geranium Ibericum.



Cryptostemma calendulacea.



Sedum oppositifolium.

RO'SA RA'PA.

DOUBLE BURNET-LEAVED ROSE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of N.America.	Height, 5 feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1726.
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No. 457.

The derivation of the word Rosa has been recently noticed. Rapa, the systematic name of the turnip, has, we presume, been adopted as a specific name for this Rose on account of its round fruit and long leafy calyx; which, together, bear some resemblance to that vegetable.

We have pleasure in noticing this Rose from experience of its value as an unfailing ornament. It is commonly cultivated as a straggling bush; in which form it has less to recommend it than many other species; but pruned to a head, on its own stem, it assumes the habit and appearance of a budded standard. We have now one in view, bearing a thousand blossom buds.

All the strong Roses may be grown on their own stems, in precisely the same forms as budded stocks. There is no general charm in budding, productive of peculiar growth. The compact head, of small laterals, can be produced by pruning alone; and so regulated as to be far more ornamental than the loose bushes usually seen. The situation, and other circumstances, should, of course, influence the taste in adopting any particular mode of training. Where

Rose trees form fence lines, the natural fence-like character should be assumed; but where there is no attempt at natural grouping, where the charm is dependent on the neatness, on the floral elegance, and nicety of keeping in detail, Roses may be so pruned as greatly to aid the design. Here it is that dwarf standards should embellish the picture.

If Roses be already established, in proper situations for standards, it only remains that attention be paid to pruning, and this peculiarity of form may at once be produced. It is true that all Roses are not equally suitable to the purpose. But those of the more delicate Chinese species, whose stems would not strengthen into a sufficiently firm standard, may be budded; and, certainly, with some advantage to the size of their flowers. We aim not at superseding the budding of standards; but of bringing into view the more easy means of arriving at similar results; of which means, from the pressure of fashion, cultivators seem to have lost sight.

To effect this purpose, young free-growing suckers should, in summer, be tied to upright stakes, and kept quite free of small lateral shoots. When they are as tall as is required, stop them, by cutting half an inch off their tops. If this can be done in the middle of summer, side shoots will be soon emitted, all of which should be cut off excepting the three upper ones. In the succeeding February, prune each of these three laterals back, to within two or three eyes or buds of the stem, and they will flower in the summer. If the suckers be not tall enough in one season, another season must be taken, observing the same general rules.

GERA'NIUM IBE'RICUM.

IBERIAN CRANE'S-BILL.

Class.
MONADELPHIA.

Order.
DECANDRIA.

Natural Order.
GERANIACEÆ.

Native of Iberia.	Height. 2 feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1802.
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No. 458.

The Greek word, GERANOS, a crane, is the root of our present generic appellation. Pelargonium, and Erodium also, which were originally considered Geraniums, have their names from the Greek of the stork and the heron; each of the three being chosen from the resemblance of the fruit of the plant to the head and bill of the bird.

This free-flowering species of Geranium is very desirable where it can be allowed room to increase and shew its boldness and beauty of character. It has a considerable resemblance to our native species the Geranium pratense, excepting that it is less robust and intrusive. The pratense being rather adapted to the shrubbery than the flower garden, excepting it be the blue and white striped variety, which, from its gaiety and rarity, is worthy of a more distinguished place.

The Geranium Ibericum should not be placed too near the front of the borders, nor near low delicate plants, as its expanding branches cannot be interfered with by tying up, without injury to its general beauty. Its roots may be divided. The sort of soil and the aspect are unimportant.

Hort. Kew. 2, v. 3, 186.

CRYPTOSTEMMA CALENDULA'CEUM.

MARYGOLD-FLOWERED CRYPTOSTEMMA.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITÆ.

Native of C. G. Hope.	Height. 18 inches.	Flowers in July, Aug.	Duration. Annual.	Introduced in 1752.
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No. 459.

The name, *Cryptostemma*, is compounded of the Greek words *KRYPTOS*, signifying hidden; and *STEMMA*, a crown; to indicate the covering or seclusion of the seed crowns by the woolly fibres of the seed vessel. The specific name is chosen in allusion to the likeness of the plant to the *calendula* or *marygold*.

This annual has never been common in England, principally, we believe, on account of the small quantity of seed which it usually ripens. Like many of the syngenesious flowers, it is subject to atmospheric influence, and never expands fully in wet weather. This meteoric irritability of flowers should not escape the attention of the observant florist. It is one amongst the innumerable minor indications of a perpetually superintending providence.

The *Cryptostemma calendulaceum* is somewhat tender; and if sown in the borders, this should not be done till the end of April. It is far better to sow it three weeks sooner, in a hotbed, which will ensure an earlier blossom, and a greater chance of fertile seeds.

Hort. Kew. 2, v. 5, 141.



SE'DUM OPPOSITIFO'LIUM.

OPPOSITE-LEAVED STONECROP.

Class.
DECANDRIA.

Order.
PENTAGYNIA.

Natural Order.
CRASSULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	6 inches.	July, Sept.	Perennial.	in 1795.

No. 460.

The Latin word, sedere, to sit, constitutes the root of the generic name Sedum. It is intended to apply to the close manner of the growth of the plants of this genus on their native rocks. This is the *Anacampteros ciliaris* of Hayworth's Arrangement of Succulent Plants.

The *Sedum oppositifolium* should not be dispensed with in any garden where there is a stone to place it against. There are certain associations in the minds of men, by which they are governed, often imperceptibly, but still the fact exists. With ourselves, Sedums and stones are so completely inseparable, that to plant them in the common borders, would seem to be setting all propriety at defiance. No situation would, we believe, prove destructive to this plant, for we have exposed it to extremes of wet and dry, to sun and shade; but never observed it fail. In flower, and out of flower, it is healthy and ornamental.

This plant may be divided at the root; and increase may be encouraged, if required, by confining the branches to the soil, and adding a little light compost about them.

Curtis's Bot. Mag. 1807.







Labinia atropurpurea



Centaurea ochroleuca



Linaria lutea



Phlox subulata

LUBINIA ATROPURPU'REA.

DARK PURPLE LUBINIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of C. G. Hope.	Height. 2 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1820.
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No. 461.

Lubinias is a name adopted by Commerson, in honour of M. de St. Lubin, a French traveller, to the East. *Atropurpurea*, from the Latin *ater*, signifying dark; and *purpura*, purple. Dr. Hooker connects it with the genus *Lysimachia*.

This is a plant of singular appearance, which has hitherto been, principally, found in the collections of curious florists. Its great depth of colouring, when examined individually, gives it a somewhat sombre cast; but in the borders, when well grown, and having the sun's rays to brighten its rich tints, it becomes an interesting ornament. It is not, however, in the borders alone that we have sought its beauty. We have searched it with microscopic eye; and the result, as is usual with diligent enquirers into the works of nature, presents us with additional evidence of human incapacity to comprehend the beauty of the arrangements by which we are surrounded.

On examining the deep crimson petals of the *Lubinias*, under a magnifier, we observed a number of minute pearl-like substances, spread over their whole interior surface. Its crimson filaments were also similarly gemmed. They appeared as grains

of farina, fallen from the anthers, but a comparison shewed them to be evidently brighter. This induced the application of a more powerful magnifier. The result was gratifying. The inner surface of the rich-coloured petals, and the filaments also, were now seen to be adorned with prominent glands—each a little globe, on a cylindrical pedestal. On the sun's rays being fully reflected on a small portion of a petal, it instantly became a most dazzling object—a ground-work of fine crimson, studded with brilliants. The most apathetic must exclaim, Wherefore this labour; wherefore this great splendor and beauty.

That these glandular appendages have certain uses in the economy of the plant, none dare deny, but what they are, all are equally ignorant.

The *Lubinia* has creeping roots, which, in a very light soil, will spread and spring up at a distance of two feet, from the parent plant. This habit is sometimes inconvenient, and we have thought that it tends to impoverish the flowering stems. In a strong soil, this propensity will be greatly checked, and its flowers will be proportionately finer. Not having a convenience of planting it in stiff loam, we enclosed its roots in a pot of tolerably rich earth; and although it does not grow as tall as when set at liberty, its flowering is equally successful.

Its creeping roots, which yield sufficient increase, should be taken up in Autumn, potted, and placed in a cold frame, during winter. Such roots as are left in the open ground, may be preserved by a slight covering of tan, which will protect them from the effects of severe frosts.

CENTAURE'A OCHROLEU'CA.

IVORY-COLOURED CENTAURY.

Class.
SYNGENESIA.

Order.
FRUSTRANEA.

Natural Order.
COMPOSITE.

Native of	Height.	Flowers in	Duration.	Introduced
Caucasus.	18 inches.	June, Sept.	Perennial.	in 1801.

No. 462.

Chiron, the wise Centaur, was intended to be honoured by the adoption of the name Centaurea. This philosopher, of the early ages of Greece, is said to have formed the constellations; amongst which, he himself, was placed by Musæus. The fabled Centaurs of the ancient poets, originated in real life; but, as was usual with Eastern poets, each, in succession, added extravagancies of his own invention. Ochroleuca bears reference to the pale ochreous tint of its flowers.

This species of Centaurea makes a good border plant, both by its flowers and its foliage; and exhibits none of the spreading propensity which is found so troublesome in some of its congeners. Its tubular flowers have a delicacy of formation, which, with the softened tint of white, contrasted with a party-coloured calyx, place it amongst the best of the cultivated species. A few of this extensive genus of plants are of large and bold character, but the extreme coarseness of their herbage is a decided drawback on their attractions.

Its culture is simple. It will grow in any situation and admit of division, at almost any season.

Hort. Kew. 2, v. 5, 146.

LINARIA ITALICA.

ITALIAN TOADFLAX.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Native of Italy.	Height. 2½ feet.	Flowers in May, Sept.	Duration. Perennial.	Cultivated in 1830.
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No. 463.

Linaria, a word altered from *Linum*; and given to this genus, on account of the general resemblance of the herbage of the two genera.

This, like several other species of *Linaria*, is an upright slender plant, of neat growth. Its numerous long racemes of flowers are particularly ornamental, and as they are produced during three or four successive months, the plant is a desirable appendage to the parterre.

The whole of this genus was, by Linneus, included under *antirrhinum*, and notwithstanding their separation has, long since, been determined, many cultivators disregard the distinction; some, perhaps, from not having studied their difference. We will point out a definite rule for distinguishing the one genus from the other. The flowers of *Linaria*, have each a spur from the bottom of the corolla. Those of *Antirrhinum* have no such appendage. Other essential differences exist, but this one is sufficient.

The roots of *Linaria Italica*, may be divided at the usual seasons. It also increases by suckers, which occasionally strike out from its roots, and produce a blossoming progeny in the Autumn.

PHLO'MIS HERBA-VENTI.

WIND HERB.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. Europe.	18 inches.	July, Aug.	Perennial.	in 1596.

No. 464.

The word Phlomis, like very many of those having a Greek origin, was founded on one of the uses to which the plant was applicable. The woolly surface of the leaves, was employed, we are told, for making lamp wicks; thus, PHLOGMAS signifying flame, formed the root of the term. There is, indeed, a species called the lamp-wick Phlomis, a native of the southern parts of Europe, the entire leaves of which are said, from their downy surface, to form admirable wicks. Herba-venti, signifying wind herb, is retained as a specific name, from its having been used for this plant by Bauhin, the elder of the celebrated brothers of this name. Its application was occasioned by the leaves being sometimes anatomized by wet weather; when, losing their parenchyma or, pulpy part, they become pervious to the wind.

The Phlomis herba-venti is a showy free flowerer, and when well established, produces its flowering stems in-abundance, and becomes very attractive.

If planted in a light dry soil it is sure to flourish. It may, occasionally, be divided, although too frequent a removal should be avoided.

Hort. Kew. 2, v. 3, 417.





Rosa centifolia.

72



Hyssopus orientalis

73



Leptostelma maximum

74



Digitalis hybrida.

75

ROSA CENTIFOLIA.

VARIEGATED PROVINS ROSE.

Variety: Village Maid.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Hybrid of France.	Height. 3 feet.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1833.
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No. 465.

The derivation of the word ROSA has been lately noticed. Centifolia, from the Latin, hundred-leaved; in allusion to its many petals.

So numerous have the varieties of seedling Roses become, and so mingled are the characters of some of them, that it is difficult to give them a place in connexion with any distinct species. The beautiful flower of which we have now the gratification of giving a figure, is a novelty of no common order. It is quite unlike the old variegated York and Lancaster Rose. It is more compact in the arrangement of its petals, as well as richer in its general colouring; and it cannot fail of becoming a delightful favourite in the rosary. It has lately been obtained from France, by several English nurserymen, but by whom it was there raised we are not informed. Like other attractive seedling varieties, it was, of course, entitled to an attractive florist's cognomen, and our continental neighbours have adopted the very modest one of Village Maid. Grown on standards it will highly decorate the garden or lawn; and we recommend the Village Maid as worthy the patronage of all rose-loving florists.

The first part of the paper is devoted to a discussion of the
 various methods which have been proposed for the determination of
 the rate of reaction between a solid and a liquid. It is shown that
 the most reliable method is that of measuring the change in the
 weight of the solid as the reaction proceeds. This method is
 applicable to all cases in which the solid is insoluble in the
 liquid. It is also applicable to cases in which the solid is
 partially soluble, provided that the solubility is known. The
 method of measuring the change in the volume of the solid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the refractive index of the liquid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the electrical conductivity of the
 liquid is also discussed, but it is shown that it is not so
 reliable as the method of measuring the change in weight. The
 method of measuring the change in the pH of the liquid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the color of the liquid is also
 discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the viscosity of the liquid is also
 discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the density of the liquid is also
 discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the surface tension of the liquid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the boiling point of the liquid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the melting point of the solid is
 also discussed, but it is shown that it is not so reliable as the
 method of measuring the change in weight. The method of
 measuring the change in the heat of reaction is also discussed,
 but it is shown that it is not so reliable as the method of
 measuring the change in weight. The method of measuring the
 change in the rate of reaction is also discussed, but it is
 shown that it is not so reliable as the method of measuring the
 change in weight. The method of measuring the change in the
 rate of reaction is also discussed, but it is shown that it is
 not so reliable as the method of measuring the change in weight.

HYSSO'PUS ORIENTA'LIS.

ORIENTAL HYSSOP.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of Caucasus.	Height. 2 feet.	Flowers in June, Sept.	Duration. Perennial.	Cultivated in 1816.
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No. 466.

The systematic name, Hyssopus, is deduced from the Hebrew, EZOB, signifying a herb for sacred uses. Some authors have stated that the original word was compounded from the Greek, to signify "showering on the countenance," in allusion to a custom of that people, who, in their religious ceremonies, used powdered Hyssop to sprinkle on the heads of worshippers. They either believed that it purified those on whom it was showered; or, they used it as typical of purification. Whether the hyssop of holy writ has any connexion with our present subject is not easy to ascertain. There is not, that we are aware of, in the works of old writers, any distinct evidence to guide such enquiry.

The first scriptural notice of Hyssop, is a remarkable one—the institution of the passover, stated in the book of Exodus. It is also referred to in several other passages, clearly showing the estimation in which it was held as a plant of purification; both literally and emblematically.

St. John says, they filled a sponge with vinegar, and put it upon hyssop, and put it to his mouth. The other evangelists say, "put it on a reed." Hence

several writers conceive that Hyssop supplied the place of the reed; and, consequently, must have been a large shrub to afford a branch adequate to the purpose mentioned. In the first book of Kings we read that Solomon "spake of trees, from the cedar tree that is in Lebanon even unto the Hyssop that springeth out of the wall." Here Hyssop and the cedar are opposed to each other, as the extremes of large and small. From this and other variance of description, some commentators have assumed that the name of our present subject, was one employed generally for any aromatic plant; but, considering that a thousand years transpired between the splendour of Solomon and the crucifixion of our Saviour, it surely is unnecessary to endeavour the reconciliation of a name to the same individual plant. The wonder would most naturally arise if the plant and name continued so long in connexion.

From the apparent qualities of the *Hyssopus orientalis*, it may be presumed to possess all the virtues of its congener, with greater beauty; consequently it may serve the double purpose of an ornamental shrub, and an aromatic and medicinal one. Hyssop tea, sweetened with honey, is a popular remedy for coughs and affections of the lungs.

The *Hyssopus orientalis*, or *angustifolius* of Bieherstein, is a remarkably free-flowering ornamental little shrub, of neat growth; and is more powerfully aromatic than the *Hyssopus officinalis*, or common Hyssop of our gardens. It may be propagated by division, from cuttings, or by seeds. If seeds are sown early in spring, the plants will flower in the succeeding autumn.

LEPTOSTELMA MAXIMA.

GREAT LEPTOSTELMA.

Class.
SYNGENESIA.

Order.
SUPERFLUA.

Natural Order.
COMPOSITÆ.

Native of Mexico.	Height. 6 feet.	Flowers in Aug. Sept.	Duration. Perennial.	Introduced in 1828.
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No. 467.

The name, *Leptostelma*, is compounded of the two Greek words, *LEPTOS*, signifying slender; and *STELMA*, a crown; in allusion to the slender petals of its ray. *Maxima*, from the Latin, great. We wish that Mr. Don, at the time he established a new genus for this plant, had given it a different specific appellation. A name of comparison, when the genus comprises but one species is somewhat anomalous.

This bold herbaceous plant, but for its size, bears most of the general character of the genus *Erigeron*; indeed, the botanical characters also, of the two genera, are very closely allied to each other. The composite flowers of *Leptostelma*, each composed of such delicate parts, and elevated six or seven feet high, make it a desirable appendage to the herbaceous ground or shrubbery. It may, appropriately, have a place amongst the tall phloxes, delphiniums, helianthemums, asters, and others of the tall compositæ.

Notwithstanding it is a native of Mexico, it has borne, uninjured, three successive winters of England; therefore, doubtless, in the severest seasons, it would require but a slight protection. It may be divided at the root; and will grow in any aspect.

Sweet's Fl. Gar. s. 2, 38.

DIGITA'LIS HYBRIDA.

CAMPBELL'S HYBRID FOXGLOVE.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHULARINÆ.

Hybrid of England.	Height. 3 feet.	Flowers in June, July,	Duration. Perennial.	Originated in 1825.
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No. 468.

In the similarity which the flowers of this genus bear to the finger of a glove, has originated the name *Digitalis*, and its application to these plants; the root of the word being the Latin *digitale*.

The origin of the *Digitalis*, which we now introduce, has been a subject of considerable interest to physiologists. Botanists have not agreed in opinion on the subject of hybrid plants—whether such productions will be permanently established amongst the vegetables of the earth, or whether they will be lost to future generations, unless propagated again, as at first, from their parent species. Difference of opinion also exists regarding the species and genera between which varieties can be raised. The plant now before us, has been propagated between the *Digitalis ambigua*, and *Gloxinia speciosa*, by Mr. Alexander Campbell, curator of the Manchester Botanical and Horticultural Society's Garden.

We cannot give our readers any information so satisfactory as that with which Mr. Campbell himself, has furnished us. He says, "The close resemblance which the flowers of *Digitalis* bear to those of *Gloxinia*, suggested the idea that a cross between

them was practicable. I selected a shoot of *Digitalis ambigua* for the experiment; half a dozen of its flowers were carefully fertilized with the pollen of *Gloxinia speciosa*; the shoot was denuded of the remainder of its flower buds, and no more attention was bestowed till the capsules were ripe. One half of those impregnated, produced perfect seeds, which were sown immediately, when ripe, and placed in a warm frame till they vegetated, after which they went through the usual process of potting, &c. Thus encouraged, they were fit to be transplanted into the open borders, the following spring; and I had the satisfaction to see one, which took the lead of the rest, in flower late the ensuing autumn; and the whole of them flowered, in great profusion, in the succeeding year." Mr. Campbell further states that it is a remarkably free flowerer, continuing from June till frosts set in; which he very reasonably suggests may arise from its sterility; all his attempts to fertilize it having proved ineffectual.

Most of our readers are aware that no plant can perfect its seeds, unless the pollen or powder produced by its own anthers, or the anthers of a plant nearly related to it, falls on its stigma. This we explained under *Potentilla Russelliana*, No. 304; and practically illustrated in *Potentilla atrosanguinea-pedata*, No. 385, an intermediate variety, which we raised between the two very distinct species, indicated in its compound appellation. How far nature will admit this system of hybridization, becomes a curious and most interesting enquiry. It is evident that the present division of genera, forms no bar to the production of mules between them.



Thermopsis fabacea.

22



Lythrum diffusum.

23



Iris sambucina.

24



Libertia formosa.

25

THERMOPSIS FABACEA.

FABA-LIKE THERMOPSIS.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LEGUMINOSÆ.

Native of Siberia.	Height. 2 feet.	Flowers in May, June.	Duration. Perennial.	Cultivated in 1818.
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No. 469.

The name, *Thermopsis*, is compounded from the Greek, *THERMOS*, a lupine; and *OPSIS*, a resemblance. The general appearance of this genus to the lupine, admits the comparison, although its botanical character has considerable difference. *Fabacea*, is from the Greek *PHAGO*, to eat, whence comes, also, *faba*, the systematic name of our garden bean, on account of its esculent quality.

The natural order of *leguminosæ*, contains, on the whole, so highly ornamental a division of trees, shrubs, and herbs, that, even at first sight, the introduction of any subject contained in it, is sufficient to excite interest and enquiry. Humboldt estimates that it contains about one twelfth of the phænogamous plants, scattered over the earth.

The *Thermopsis fabacea* is very little known, although a desirable perennial for the mingled flower border. It is quite hardy, as may be indicated by its native country. In spring, it admits of division, but as it ripens seeds, pretty freely, we would recommend propagation from these. Where variety of soil is at command, a preference should be given to that which is light and of good depth.

LYTHRUM DIFFUSUM.

DIFFUSE LYTHRUM.

Class.
DODECANDRIA.

Order.
MONOGYNIA.

Natural Order.
LYTHRARIÆ.

Native of N. America.	Height. 18 inches.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1800.
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No. 470.

The Greek LYTHRON, signifying clotted or black blood, gave this name, from the flower's hue.

The specific distinction of this plant, may, in some degree, yield an impression of its being a diffuse straggling plant. Although its branches, when long, are more or less spreading, they simply require a little tying together, which will produce a neat and unobtrusive growth. It is not, however, in all situations, that compactness or neatness of growth is really advantageous, either to the appearance of the plant, or the general effect produced in the little landscape of a flower garden. It is evident, that in small gardens, where neatness of keeping forms one of the most attractive and pleasing features, a sacrifice must oftentimes be made of the natural characteristic vegetable outline, especially amongst the herbaceous kinds. These, and more particularly such as are only of annual growth, are apt to ramble widely and inconveniently, over a space which cannot be afforded them. Their succulency and tenderness generally unfits them for self-support. The consequence is evident; assistance must be given; and a most inharmonious appearance may be the

result, unless such operations be conducted with some regard to the natural inclination of vegetable forms. The stakes, or other supports for plants, even if of the neatest appearance in themselves, can but be unsightly, when too prominent in the borders. A support is not unfrequently encompassed by an unsightly bundle. Operations of this description are, frequently, proceeded in without reflection; a precedent being at first followed, a habit is acquired, and the judgment influenced. Thus, even in trifles, we trace the origin of prejudices, and catch a glimpse of a powerful barrier to improvement. On the other hand, if every one, competent or incompetent, were studious to improve existing usages, it were better to follow the partially imperfect.

Our hint on the subject of supporting plants, may awaken attention to the subject, which is nearly all that can be requisite. It may, perhaps, be noticed that sticks or supports, should not stand higher than the plants themselves. They may be forced into the earth, and drawn up again as required; and also that low and recumbent plants, may be supported, by small sticks being placed under them in a slanting direction. Other methods will readily be contrived by the ingenious cultivator.

The *Lythrum diffusum*, as, indeed, are the *Lythrums* generally, is ornamental, although not conspicuously gay. Their long spikes of flowers, afford a pretty variety, and deserve a place in the best collections. It may be increased in spring by dividing the hard woody crown; or by cuttings, taken with a heel from the crown, when a few inches high; and also by seeds. Soil is unimportant.

IRIS SAMBU'CINA.

ELDER-SCENTED IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
S. Europe.	2 feet.	June.	Perennial.	in 1658.

No. 471.

Iris, the Greek name of the rainbow. Sambucina, from sambucus, the systematic name of the elder given in reference to the scent of this species.

Few only, amongst the numerous species of Iris, are distinguished for their odor; this however, is scented, and not unpleasantly, though its aroma is altogether inferior to that of the Persian Iris—a little early-flowering beauty, which we must not omit, at some early opportunity, to introduce to our readers. The Iris Sambucina is of the tuberous rooted division of Irises, of the medicinal virtues of which the old botanists were very profuse in their praise; but regarding the bulbous species little occurs, probably from their being comparatively few in number. Amongst other prescriptions, the green roots are recommended to be infused in rose-water, to make a cosmetic; mainly good against all sorts of scars, marks, freckles, and sun-burned complexions.

Gilbert, who was an inveterate versifier, says,

“ Irises, like rainbow, several colours show,
With ease persuaded to increase and grow.”

We may adopt his opinion in the culture of this interesting species of Iris. It increases freely.

Hort. Kew. 2, v. 1, 119.

LIBERTIA FORMOSA.

BEAUTIFUL LIBERTIA.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDÆ.

Native of Chiloe.	Height. 2 feet.	Flowers in May, June.	Duration. Perennial.	Introduced in 1832.
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No. 472.

The name of this genus was adopted by Sprengel, in honour of Mademoiselle M. A. Libert, a Belgian lady of talent and industry, who has added many interesting plants to the Flora of France. Formosa, from the Latin, beautiful or handsome.

From Dr. Lindley, in the Botanical Register, we learn that the *Libertia formosa* was found by Mr. James Anderson, in the island of Chiloe, growing on the sea shore, within reach of the waves. We were favoured with a specimen of it by Mr. McIntosh, from those gardens, which are associated with the feelings of every British subject, by a remembrance the most melancholy. It is but to name Claremont, and the mind gladly turns from the sad recollection of its associations.

The *Libertia formosa* is a charming addition to the flower garden. It is much like the white variety of *Tradescantia Virginica*; but notwithstanding it is smaller, it is more gay, from having a greater number of flowers expanded at the same time.

It may be divided, or raised from seeds. Till a winter, more severe than the two last, has proved it quite hardy, a plant should have frame protection.

Bot. Reg. 1630.



Malva Munroana.



Potentilla rupestris.



Prunella Sibirica.



Ranunculus millefolius.

MAL'VA MUNROA'NA.

MUNRO'S MALLOW.

Class.
MONADELPHIA.

Order.
POLYANDRIA.

Natural Order.
MALVACEÆ.

Native of Columbia.	Height. 3 feet.	Flowers in June, Oct.	Duration. Perennial.	Introduced in 1828.
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No. 473.

The word *Malva*, in its progress from language to language, has undergone considerable change, being deduced from the Greek *MALAKE*, signifying soft. The emollient properties of the Mallow are not disregarded at the present day. By the ancients, they were greatly extolled. The specific name was given by Douglas, the London Horticultural Society's Collector in North America, in compliment to the society's gardener, Mr. Munro.

This *Malva* was discovered by Douglas, growing abundantly on barren plains, in Columbia. It forms a neat little bush, and under proper management, is very ornamental. We first saw it, growing very unthriftilly, in a border of rather strong soil, with an eastward exposure, in the Horticultural Society's Garden. We, therefore, planted it in a rich light soil containing a portion of peat and lime. Here it flourished exceedingly; but certainly at the expense of its flowers; for, although every axil had its peduncle, not more than a single flower opened on each. A gravelly soil, mixed with a little old building rubbish, encourages both its gaiety and growth. Increase by cuttings of the lowest shoots.

POTENTILLA RUPES'TRIS.

ROCK CINQUEFOIL.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of England.	Height. 18 inches.	Flowers in June, July.	Duration. Perennial.	Inhabits Rocks.
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No. 474.

Potentilla, a diminutive, from potentia, powerful. Hence the plants, probably, were esteemed as possessing but little medicinal power. Rupestris, from the Latin rupes, a rock; indicative of its native place of growth.

Many of the Potentillas being inconspicuous alpins, the genus was but little noticed till the three species, splendens, formosa, and atrosanguinea, were introduced in 1822, from Nepal. These gave rise to hybrids of greater beauty than any of the original species, and every garden now displays its potentillas.

The species before us is a remarkably neat upright-growing plant—a character not possessed by many Potentillas; for most of them are of somewhat straggling growth. Its flowers, too, on their slender footstalks possess a pleasing elegance.

The Potentilla rupestris, notwithstanding its rocky habitat, grows freely in light soil. In sandy peat we have observed it remarkably fine. It increases freely, and about Midsummer a little good compost should be placed round the plant, to encourage the suckers to emit strong roots.

Hort. Kew. 2, v. 3, 274.

PRUNELLA SIBIRICA.

SIBERIAN SELF-HEAL.

Class.
DIDYNAMIA.

Order.
GYMNOSPERMIA.

Natural Order.
LABIATÆ.

Native of Siberia.	Height. 1 foot.	Flowers in July, Sept.	Duration. Perennial.	Cultivated in 1826.
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No. 475.

The generic appellation, *Prunella*, is derived, according to the oldest authorities, from the German name of a disease incident to the throat, which disease the plant was thought to cure.

This is, by far, the largest and handsomest species of *Prunella* with which we are acquainted. The plant is strong and grows freely; its flowers comparatively large and interesting. It is well suited either for the mingled flower border, amongst other herbaceous low plants, or for ornamenting artificial rock-work, where it will luxuriate most freely. Indeed, in such situations it is seen to peculiar advantage.

The *Prunella Sibirica* produces numerous suckers, which spread laterally, on the surface of the ground, and emit roots as they proceed. These, with moderate care, may be removed at any season, and they will soon become established. It may be propagated from seeds, as well as by division. They should be sown in August, and the plants will flower in the following summer; but if not sown till spring, the seedlings will not flower till the following year.

their acquaintance; but we cannot pass by the opportunity of endeavouring to awaken the attention of those, who entirely neglect either the flowers of the field, or the animated little beings which sport amongst them, inasmuch as they deprive themselves of innumerable innocent pleasures.

It is not demanded that wild flowers be introduced to the garden. They flourish most, and are the most interesting in the places nature has appointed them; where they transform the wilderness into a garden, and adorn our every walk. Here it is that we would desire that all should be capable of enjoying them. It is the pleasure and feeling of gratitude, derivable from the bounties of nature in her every form and every season—in the garden, and in the field; from the parterre and from the hedge-bank, that we would endeavour to disseminate. How enviable the lot of such as reap a daily portion of happiness from the perfect works of creation, whether disposed by human ingenuity, or widely spread over Nature's own museum—

These, grateful, share the gifts of Nature's hand;
And in the varied scenes that round them shine
(Minute and beautiful, or rude and grand),
Admire the amazing workmanship divine.

Blows not a floweret in th' enamelled vale,
Shines not a pebble where the rivulet strays,
Sports not an insect on the spiey gale,
But claims their wonder and excites their praise."

I. Scott--Time's Telescope.

The *Ranunculus millefoliatus* may be grown in the open borders; or with the alpines, in a mixture of loam, peat, and sand. Divide in Autumn.

Don's Mill. Diet. 1, 26.



Nierembergia intermedia.



Menziesia polifolia.



Meconopsis Cambica.



Chymocarpus pentaphyllus.



NIEREMBER'GIA INTERME'DIA.

NARROW-LEAVED PURPLE NIEREMBERGIA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
SOLANÆÆ.

Native of	Height.	Flowers in	Duration.	Introduced
S. America.	1 foot.	June, Sept.	Perennial.	in 1832.

No. 477.

Nierembergia, is adopted after Nieremberg, a learned Spaniard. The specific name bears reference to the plant holding a place, in its general character, between the Nierembergia phœnicea and other species which are smaller than itself.

Notwithstanding the enterprising spirit of foreign botanical collectors, and the wonderfully increasing stimulus given to their exertions, by the rapidly improving taste of this country, so valuable an addition to the flower garden as the Nierembergia phœnicea, No. 416, cannot be anticipated every year. Our present subject, another species of the same genus, whose introduction has so quickly followed, is an eminently beautiful one—not less so than phœnicea; but it cannot be employed in like manner, to ornament walls, or trellises; or to give a living carpet to a large compartment of a garden, almost with the facility of a theatrical metamorphosis. Intermedia, is a cabinet picture of highest finish; phœnicea, a broad landscape, also of delicate touch. Whilst the latter spreads widely, the former makes a close bush of fine herbage, but is equally admirable for its multitude of rich velvet-like blossoms.

The cultivators of exotic beauties are indebted for the introduction of this choice plant, to Mr. Patrick Neill of Canonmills, near Edinburgh. Not for this plant alone are they indebted to Mr. Neill, for he is well-known as an importer of many new plants; as a zealous naturalist; and also, as a successful cultivator of exotics, in a little umbrageous dell, such as Adam, within his more ample garden, may have chosen as a depository for his peculiar favourites. Mr. Neill's garden has, indeed, a rich collection of plants in small compass; which, with its adjoining lake and trees, reminds us of Milton's descriptive lines:

“Umbrageous grots and caves
Of cool recess, o'er which the mantling vine
Lays forth her purple grape, and gently creeps
Luxuriant: meanwhile murm'ring waters fall
Down the slope hills, dispersed, or in a lake,
That to the fringed bank, with myrtle crown'd
Her crystal mirror holds, unite their streams.”

Most persons are completely unaware of the capabilities of a small spot of ground, employed as a flower garden. A pretty correct estimate may at once be caught sight of, by the simple fact, that by pot culture, a space consisting of four yards square, with pots three inches diameter, will contain upwards of two thousand three hundred plants. How very few cultivators can boast of a garden containing this number of species!

The *Nierembergia intermedia* is very suitable for pot culture, by which its small foliage and rich-coloured flowers are shown to advantage. In the borders it should have a front place. May be raised from seeds, or cuttings.

MENZIE'SIA POLIFO'LIA.

HOARY-LEAVED MENZIESIA.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICAÆ.

Native of Ireland.	Height. 1 foot.	Flowers in July, Sept.	Duration. Perennial.	Inhabits Mountains.
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No. 478.

Menziesia, is a name adopted in honour of Archibald Menzies, Esq. F. L. S. Polifolia, from the Greek, POLIOS, hoary.

This plant was originally the Erica dabeoci of Linneus. It is a beautiful little subject, bearing the general aspect of a heath; amongst which in the garden it is a desirable addition. Our variety of it—the white flowering, has been lately discovered in Ireland, growing with the common or purple-flowered. It has hitherto been introduced into very few collections. Another variety known as Menziesia polifolia nana is completely distinct in its appearance from each of its congeners. It becomes a close and beautiful tuft of green, devoid of protruding stems or branches, excepting an occasional one of flowers.

The Menziesia polifolia was formerly believed to have been peculiar to Ireland; where, in a part of the county of Galway, it is said to be very abundant. It is now known to be native also of the western Pyrenees, and other parts of the south of Europe. In culture it only requires to be planted in good sandy peat.

Hort. Kew. 2, v. 2, 360.

MECONOPSIS CAMBRICA.

WELCH MECONOPSIS.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
PAPAVERACEÆ.

Native of England.	Height. 1 foot.	Flowers in May, Aug.	Duration. Perennial.	Inhabits Rocks.
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No. 479.

The word, Meconopsis, is compounded from the Greek MEKON, a poppy; and OPSIS, a resemblance; the application of which is self evident. MEKON, as the name of a poppy was derived from the Greek MEKOS, signifying bulk, and alludes to its bulky head or capsule. Cambria, is a name that was employed to distinguish the province of Wales, at a very early date, even before Cæsar's invasion.

This plant was formerly the Papaver Cambricum, of botanists; but was separated from that genus on account of the want of agreement in their seed vessels. As an ornament in the flower garden it may be considered indispensable. Its delicate canary-coloured blossoms are produced in abundance, and continue in succession through several months.

It is very productive of seeds; and occasionally, a spontaneous seedling will be found near the root; in general culture, however, the seeds must be sown in spring, in the open ground, where the plants may remain, which is far better than sowing them in situations whence they may require removal; for, like most of the papaveraceæ, it is somewhat impatient of removal.

CHYMOCARPUS PENTAPHYLUS.

FIVE-LEAVED CHYMOCARPUS.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
TROPÆOLEÆ.

Native of S. America	Height. 3 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1830.
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No. 480.

The Greek words, KYMOS, juicy ; and KARPOS, a fruit, afford a well characterised name for the present plant as the head of a new genus. The specific name is also of Greek derivation from PENTE, five ; and PHYLLON, a leaf.

This singular climbing plant, has been known to botanists for many years, through the observations of the celebrated French naturalist, Commerson. He found it growing near Buenos Ayres, fastening itself upon shrubs. It had also fallen under the notice of other travellers, but was first cultivated in Great Britain, from South American seeds, by Mr. Neill, whose garden, on the edge of the modern Athens, we have just noticed.

Mr. D. Don, in the Linnean Transactions, has given a definite character of this novel subject, and made it the type of the new genus, Chymocarpus. The calyx of Tropæolum and many other plants is deciduous, and unimportant, otherwise than as a protection to the incipient flower ; but in the one before us it is persistent or lasting, and of singular habit. In illustration, we may give Mr. Don's words, which we find in a supplemental paper on the Chy-

mocarpus, inserted in the Linnean Transactions. He says, "The first character I shall have to notice is the persistent nature of the calyx, so different from that of *Tropæolum*, which is strictly deciduous. Not only is the calyx persistent, but it undergoes considerable changes during the progress of the fruit towards maturity, at which period it will be found to have increased very much both in size and thickness, its vitality continuing undiminished until the decay of the stem that supports it. In the advanced state, the tube or spur assumes a fleshy consistence, and is abundantly supplied with a honey-like fluid, its extremity being partially separated from the rest by a constriction, as if formed by a ligature, and finally withering and falling off, while the other parts remain in a healthy state."

Most plants depend on the beauty of their corolla for their attraction; but in this, it is the calyx that constitutes the prominent feature; it having but two very minute red petals, placed one on either side of its upper calyx lobe. So various are the means by which an omnipotent hand is displayed in all the works of creation, that it were, indeed, a perverse blindness, to pass, unheeded, these marks of power and infinite variety.

The *Chymocarpus pentaphyllus* is most luxuriant when its carrot-like roots have free growth in an open border of peat, sand, and loam. In pots it should be kept nearly dry, during winter, whilst in a dormant state. In all cases its succulent stems and roots must be wholly protected from frost. It may be increased from seeds; or its cuttings will root in sand, in a hotbed.

